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Autor: Gerhard Middendorf

Guide to the special functions of the programmes

Photo 3D

This extraordinary programme takes you into a new dimension of image editing: **Editing in three dimensions**. Photo 3D allows you to edit your images not just in two dimensions as usual, but in three dimensions, i.e. three-dimensionally, and very easily and intuitively. How is this possible?

The heart of the programme, **the 3D photo module**, in which you carry out all the desired editing steps, works with the depth information of a loaded image via a **depth map** that is automatically generated each time an image is loaded.

This depth map, in which the foreground can be recognised by the white or light areas and the background by the dark to black areas of the image, enables fast, differentiated image processing of the foreground, the centre of the image and the background, which can only be achieved with great effort and not without the appropriate knowledge in conventional image processing.

This technology enables you, for example, to achieve differentiated sharpening or exposure, lighting effects and lighting moods that do not have an overall effect but rather an individual effect on different image planes, spatial vignetting, varying the depth of field and the use of special effects such as fog or aura.

These different editing options turn you into your own image director with completely new, creative realisations of your design ideas and image fantasies. With the parameters associated with each filter or effect, you have complete control over the desired effect of individual effects or the interplay of several effects, allowing you to create unique and amazing resulting images.

The ready-made presets, which can be displayed in a variant browser with all available presets, provide many ready-made suggestions in addition to the individual editing options, such as **Brighten front**, **Brighten back**, **Fog**, **Moonlight**, various colour gradients, which have a different colour in the back of the image than in the foreground. The parameters displayed for each preset allow you to quickly adapt the preset to your individual taste if required.

If you have **3D glasses** (red on the left, cyan on the right), you can view the image in three dimensions with the set image depth using the anaglyph effect.

Note: The cross-programme functions or modules such as the RAW module or all other modules offered, which can be displayed via the toolbar, can be found in the corresponding guides.

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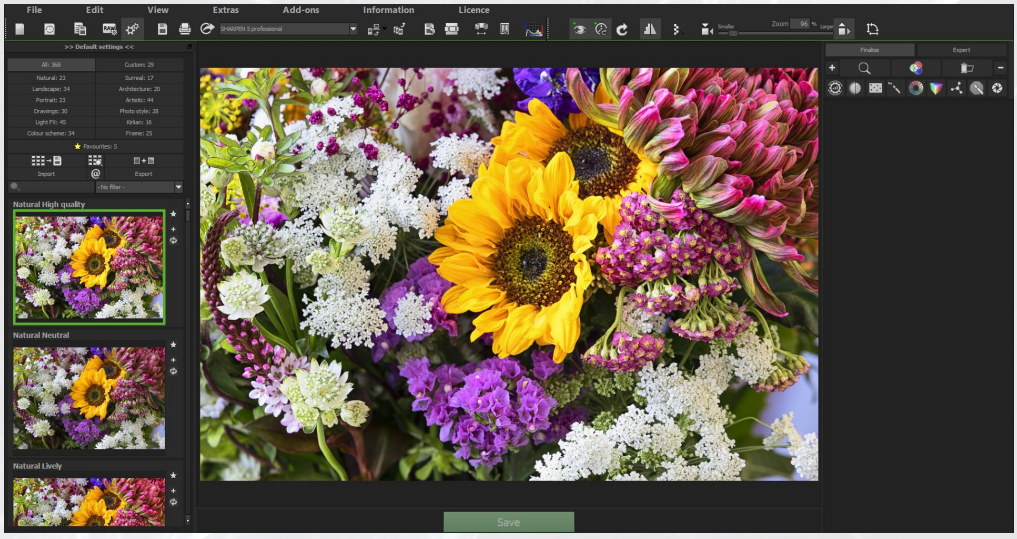
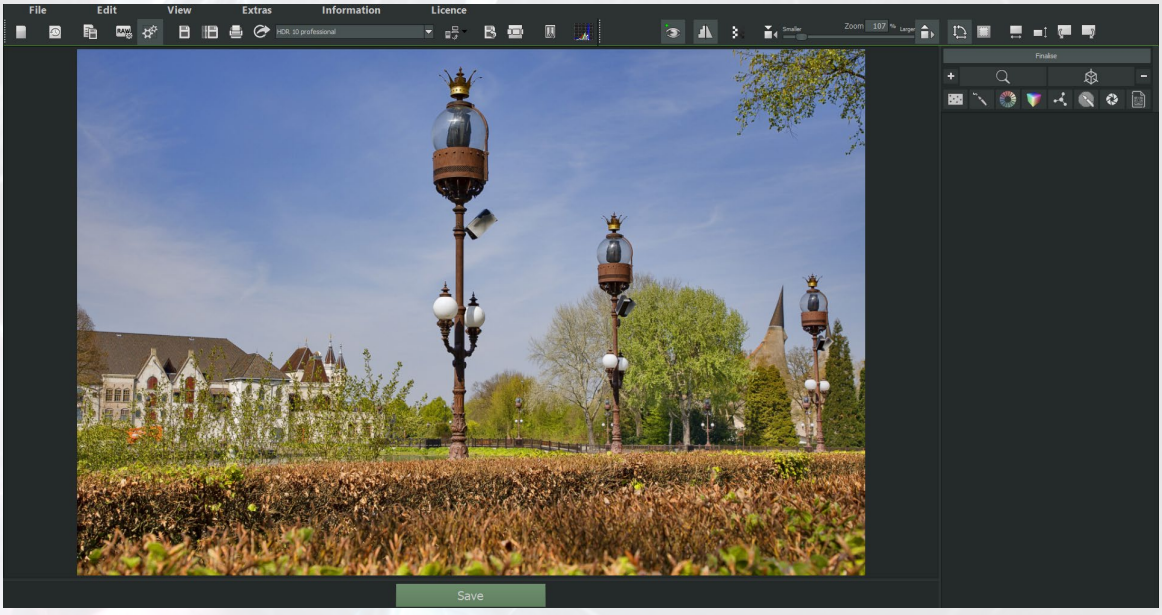
1. Workspace without presets

If you are the owner of another **Accelerated-Vision** programme, you do not need to change. The arrangement and use of the menus, tools and modules offered in the toolbar or the RAW module is identical with one exception, requires no familiarisation and is described in detail in the **General functions guide**.

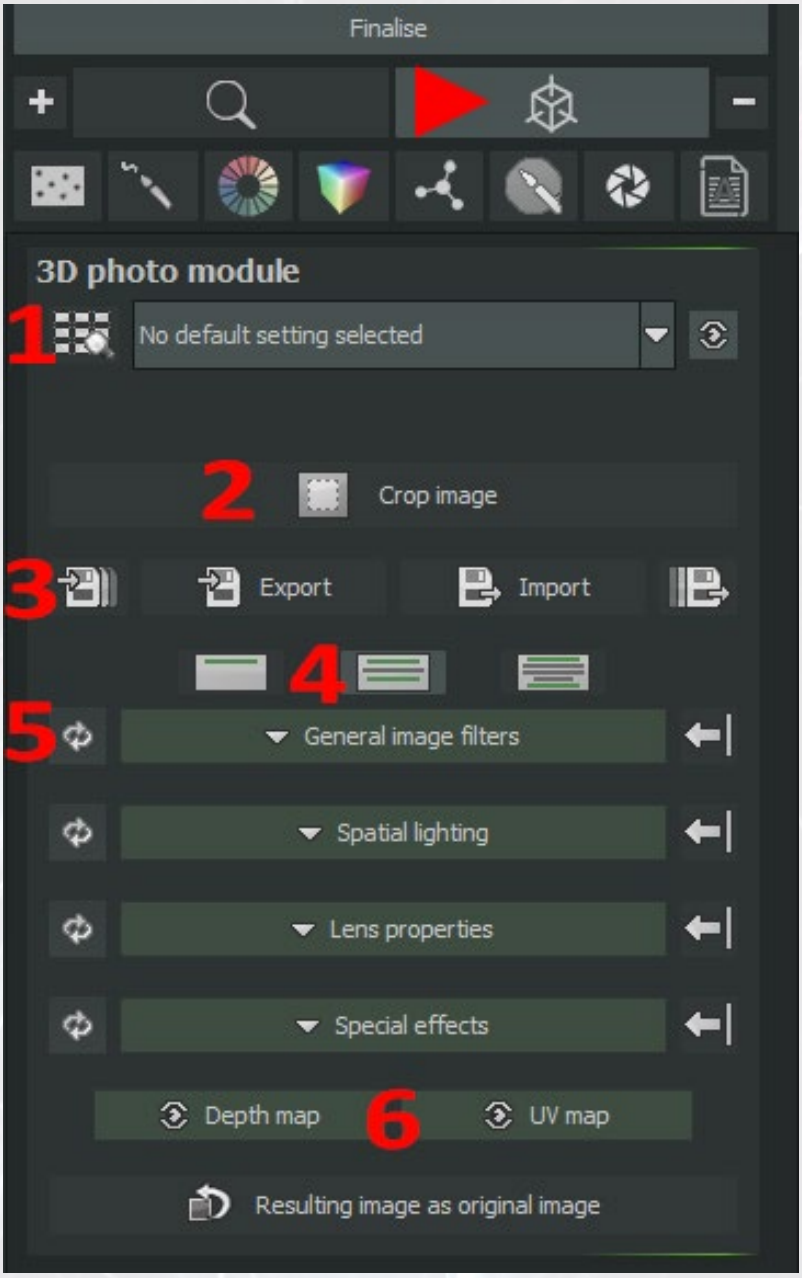


The workspace of **Foto 3D** differs in one respect from all other programmes such as **COLOR**:



The usual presets are missing on the left-hand side, and in **the 3D photo module** that appears there **are presets with selected effects from the various categories of the 3D filter functions or combinations of several categories**, which are presented in the Presets chapter, but no selection of preset categories with directly selectable image looks or different image moods.
This also means that you will **always see the unprocessed original after loading an image file**.

2. 3D-Photo-Module, Overview



Click on the button with the 3D symbol to display it with the selectable options:

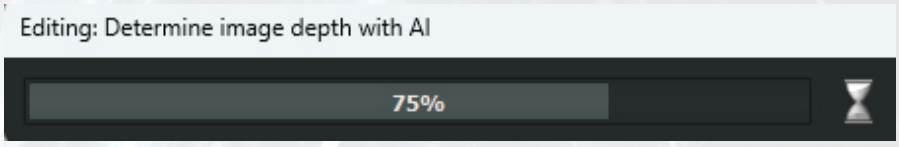
1. **Directly selectable presets**.
2. Image cropping.
3. Export/Import functions.
4. Interface for effect parameters in various modes.
5. **4 filter functions - the 'centrepiece' of the 3D module**.
6. **Depth map and UV map - the basis for spatial calculations**.

3. Depth map, UV map

In the 3D photo, all spatial effects 'live' from the **depth map** and a **directional map** (UV map).

Depth map

If you have loaded an image file, ...



... a depth map is automatically generated, as confirmed by the information **Editing: Determine image depth with AI**, which is always briefly displayed.

Click on the **Depth map button** to switch it on and display the depth information of the image. All **white to light areas** visualise the **foreground** or the parts of the image that are far in front, all **dark to black areas** visualise the **background** or all parts of the image that are far behind. The respective transitions to the centre of the image are softly blended and can be recognised by the grey gradations.

The depth map works for all types of motifs ...

... and also for shots where the main subject, such as the model in the foreground in the example, is only a short distance from the background.

Depth map as a decision-making aid: The temporary display of the depth map can be a great help when selecting the desired spatial effects, because you can anticipate how and where, for example, differentiated blurring, brightness or different colour temperatures will have an effect.

Note: With every manual change to the original, such as image **cropping** or **straightening in the RAW module**, a new depth map is automatically generated and 'adapted' to the changed image.

Save depth map: If required, each depth map can be saved like a 'normal' result image by clicking on the **Save** button in the desired storage format such as **JPG** or **TIFF** in order to use it in other programmes or to use in batch processing, for example.

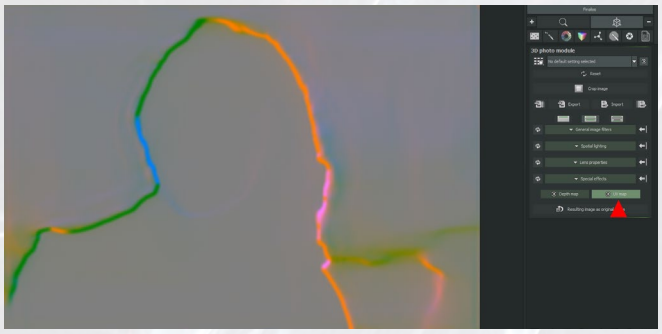
Switch to image view: Click the Depth map button again to see the usual image view.

UV-map

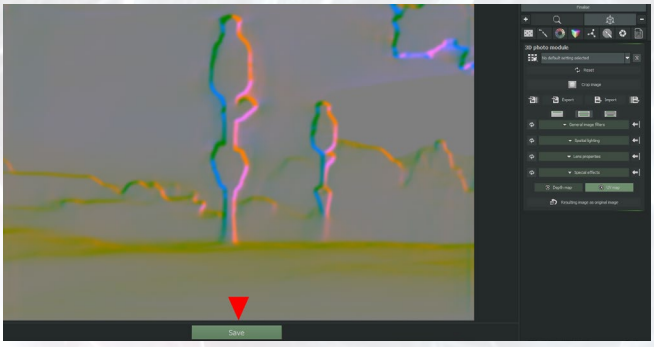
A **UV map, gradient map or directional map** is used in 3D programmes and is required to determine the **direction of an illumination or light**.

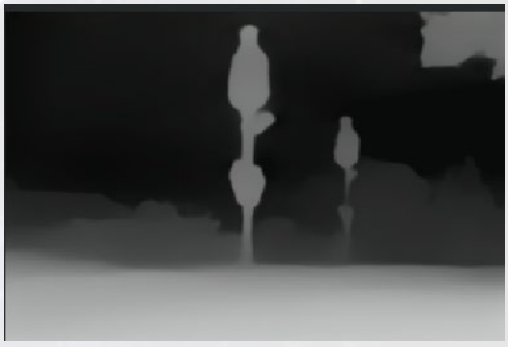
UV stands for coordinates or names of vectors such as X, Y, Z in other coordinate systems.
While the **depth map** provides all the information between the foreground and background and is sufficient, for example, to enable differentiated sharpening or colour temperature, the **UV map visualises the lighting direction** and shows where the lighting 'falls' backwards, to the left and right, upwards or downwards.

All spatial effects such as **flash light or depth light** require this calculation via the UV map if they are to be effectively staged, e.g. to change the direction of light.



This information and the direction are displayed in the **red and blue channels**. The **red channel** shows the **horizontal direction** (to the right and left) of the depth map, which can be recognised by the **reddish or orange colouring**.





The **blue channel** shows the **vertical direction** (upwards and downwards) of the depth map, which can be recognised by the **bluish or greenish colouring**. The **yellowish colouring** indicates that there is a horizontal **and** vertical direction in these image areas.

Save direction map: Like the depth map, the direction map can be saved in a desired format via the **Save button** if required, for example to be used for batch processing.

4. 3D-Filter-functions – Overview and handling

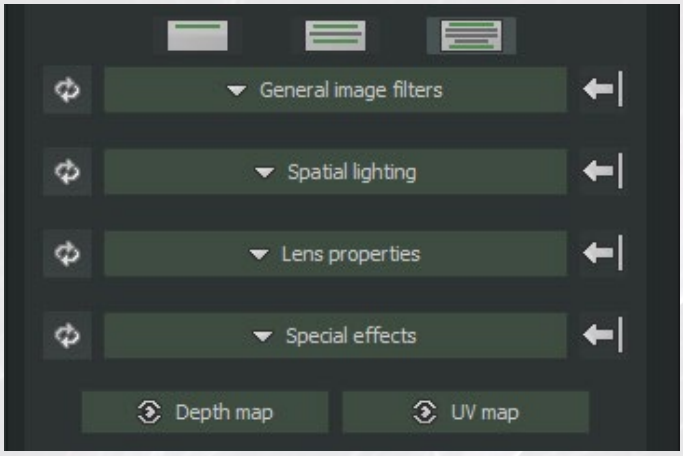
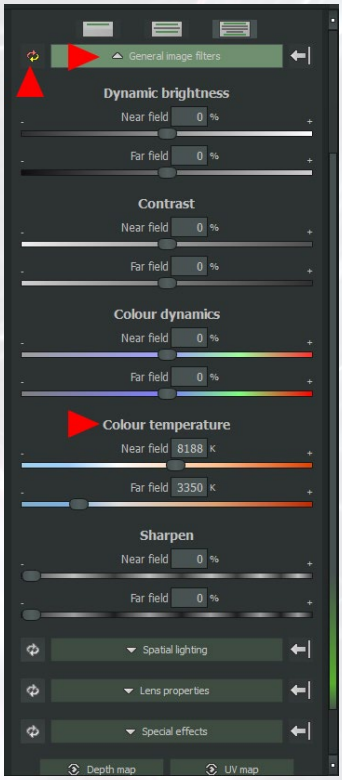
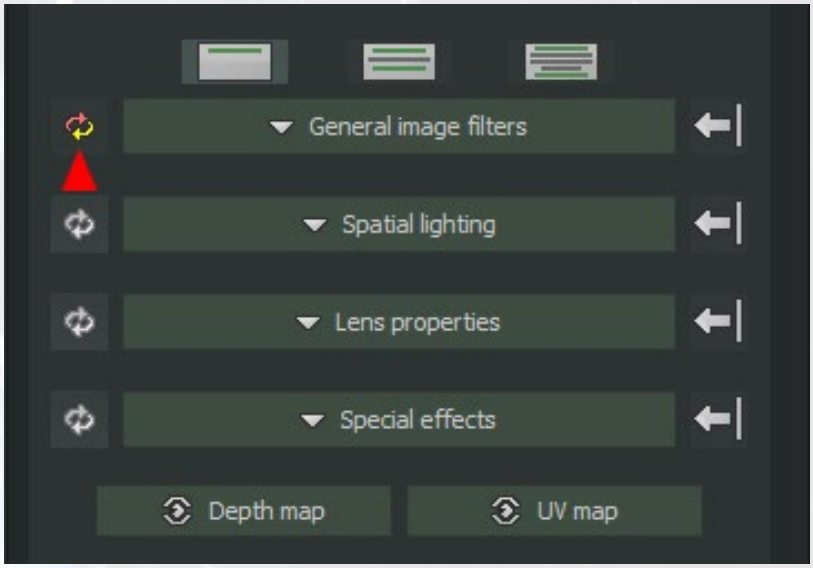


Photo 3D offers 4 filter categories:

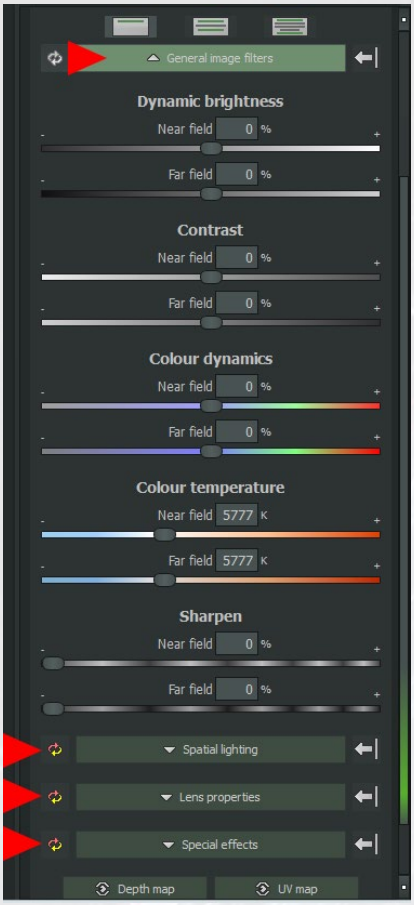
- General Image Filters
- Spatial Exposure
- Lens Properties or Lens Filters
- Special Effects

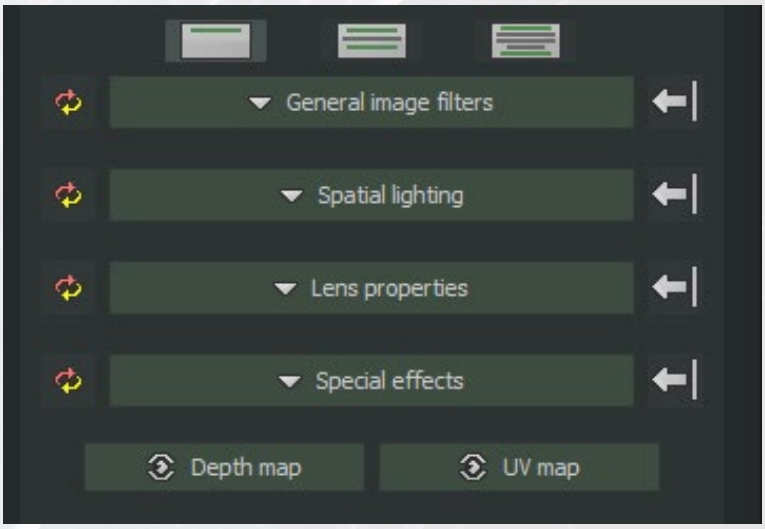




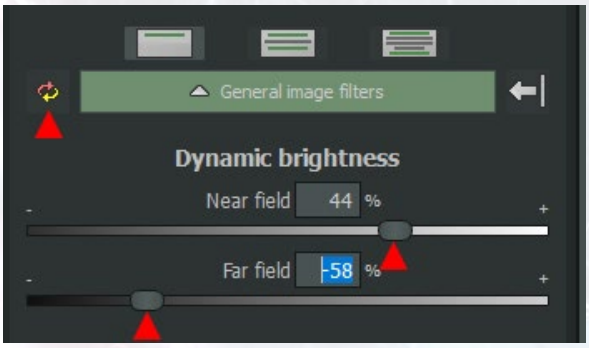
Open and close categories: Clicking on the button of a desired category or several categories opens them, the grey changes to green and all effects with the corresponding 'main sliders' of the open categories are displayed. If you continue to click on an open category after the changes have been made, in the example of colour temperature, only this category is closed, the others remain open until they are also closed by clicking on the button. The coloured arrows indicate that parameters have been changed in this category.

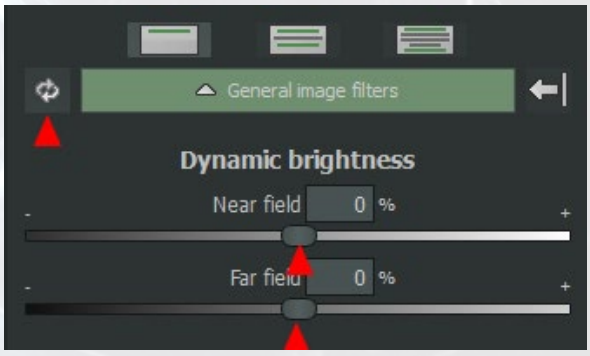
Open individual category exclusively:





By clicking on the **arrow** next to a desired category, only this category, in the example **General image filters, is opened exclusively** and all other categories in which changes have been made, as indicated by the **coloured arrows running around** them, are closed.
Clicking again on the **button** for the category in which you have made changes closes it again.

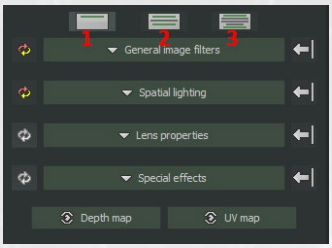




Reset individual parameters: Double-click on one or both sliders of an effect, in the example **Dynamic brightness**, to reset them to the default setting and the coloured arrows (graphic on the left) are greyed out again (graphic on the right).

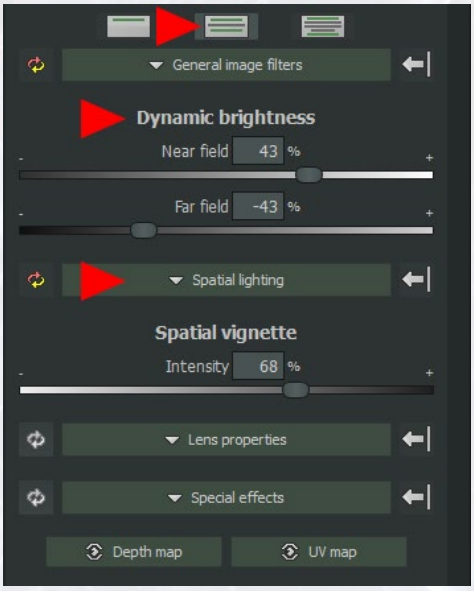
Delete all changes: Click on the coloured arrows surrounding a **category** to delete **all** changes made in this category. It does not matter whether it is open or closed.

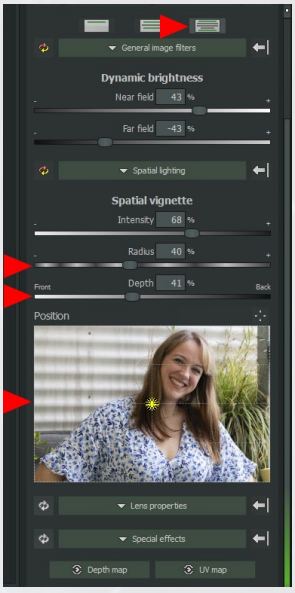
Interface modes for the parameters of the modified effects



If you have selected effects in several categories, e.g. in **General image filters** and **Spatial lighting** and changed the associated parameters, the interface can become confusing because all other, non-active effects are always displayed alongside the changed effects.
The 3 modes above the categories offer a customised interface tailored to the subject when the categories are closed:

Mode 1: If this mode is active by clicking on it (graphic above), **all parameters of the changed effects remain 'invisible'**.





Mode 2: In this interface mode, which in most cases offers the best compromise for all necessary information and the greatest possible overview, only the changed effects are displayed with the corresponding '**main controls**' (graphic on the left). In the example, these are **Dynamic brightness** in the **General image filter** category and **Spatial vignette** in the **Spatial lighting** category.

Mode 3: Click on the 3rd button to display **all** parameters and setting options associated with the selected and changed effects, such as the **Radius** and **Depth sliders** and the position window for the Spatial vignette effect in the example.

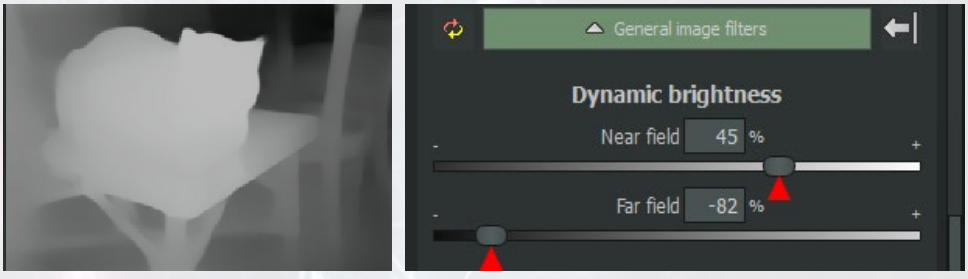
Note: Photo 3D '**remembers**' your current selection and retains this interface even when loading a new image.

5. General image filters

This category offers 5 image filters and effects:

- **Dynamic brightness**
- **Contrast**
- **Colour dynamics**
- **Colour temperature**
- **Sharpen**

Note: For many loaded images, it makes sense to combine an effect with others from the same or a different category in order to achieve even more exciting resulting images.
When presenting the individual categories with the corresponding filters or effects, the focus is on the **individual effects** in order to better illustrate their effect. You decide whether a single effect is sufficient or a combination with others to create the desired image mood or an unusual image look.
Selected combination examples are described in the Presets chapter.



Dynamic brightness

Dynamic means that this effect is used to adjust the brightness of an image in such a balanced way that the bright areas of the image are brightened less than the dark areas and, conversely, the dark areas are darkened less than the bright areas.
The two sliders **Near field** and **Far field** allow different exposure adjustments to be made to the foreground and background.
In the example, the **Near field slider** has been set to **+45%** and the **Far field slider** to **- 82%** in order to bring the main subject more into focus.

Before - After - Comparison

The comparison of the evenly exposed original ...

... to the resulting image with different brightnesses of the foreground with the main subject and the background shows the desired effect: the eye is drawn more to the cat, while the darkened background loses importance. Both together have a similar effect to a vignette.

Equal values: If you set the **same value** for both sliders, the brightening or darkening will have the **same effect on the foreground and background**. This principle applies here as with all other parameters. All effects then work like 'normal' 2-dimensional filters.

Note: As described in the previous chapter, the category has been collapsed after editing by clicking the button. By selecting the **centre interface mode**, only the **Dynamic brightness** effect is now displayed with the two 'main sliders', which are also the only ones in this category**.**

Contrast

This effect raises or lowers the local **contrasts** in the image.

Reducing the contrast, e.g. in the rear of the image (**Far field**), results in a slightly '**washed out**' look of the background.
If the contrast in **Near field** is **increased at the same time**, the subject in the foreground, in this example the steel construction of a former steelworks, becomes the real eye-catcher.
Increasing the contrast at a **Far field** and reducing it at close range causes the steel girders to become more 'blurred' and the background to appear more contrasty and therefore more present.
Both variants lead to a greater depth effect, depending on the subject and the imagined image effect.

Before - After – Comparison

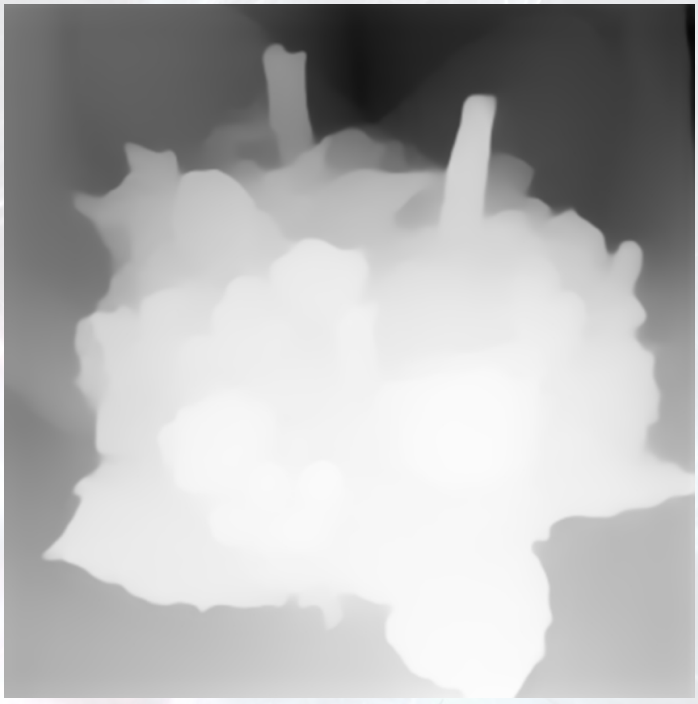
In the image example, the contrast ...

... has been **lowered to -100% in the Far field** and **raised to +30% in the Near Field** with the desired result that the steel girders draw the eye and the district literally recedes into the background.
Note: If you combine this effect with the **Fog** effect in the **Special effects**, for example, the effect is intensified even further.

In the 2nd example, conversely, the neighbourhood should be emphasised, which is achieved by **reducing the contrast of the Near field to -100% and increasing the contrast** of the **Far field** to **60%.**

Colour dynamics

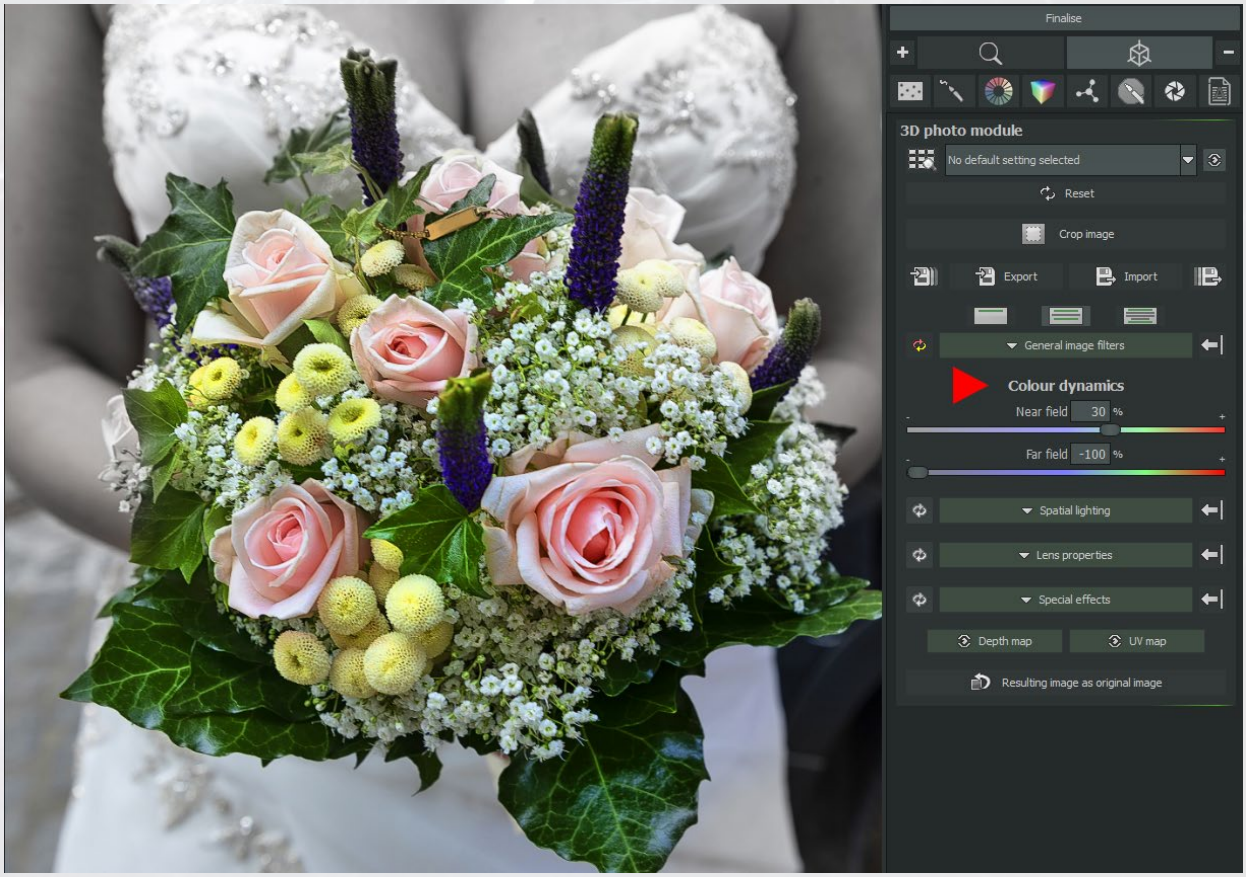
The **Colour dynamics** effect enhances colours in the image. Here, dynamic means that strongly saturated colours are less intensified than weakly saturated colours.
With negative values, the colours are reduced to a greyscale image. This combination can lead to exciting eye-catchers with, for example, the coloured main motif and the desaturated background or vice versa.



In the image example, the colour intensity of the bridal bouquet in the **Near field** is **increased with the +30% slider** setting and the background is completely desaturated with the **-100 slider** value.
As desired, the result is an eye-catcher created in a flash with the coloured bridal bouquet and the background in grey tones.

Before - After – Comparison

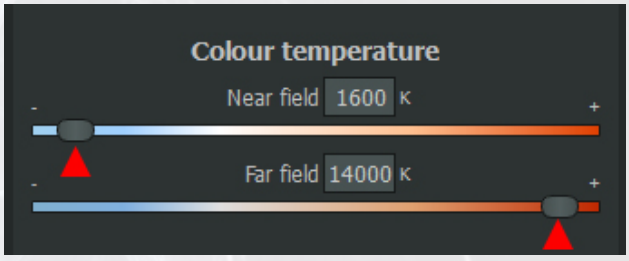
With 2 slider settings, you can ‘separate’ the foreground and background colours of similar image motifs without further image manipulation …



… and come up with new exciting picture looks.

Colour temperature

The **Colour temperature** controls the temperature mood of the loaded image motifs from **cool** to **warm**.
The preset colour temperature of 5777 K (Kelvin) corresponds approximately to sunlight at midday.

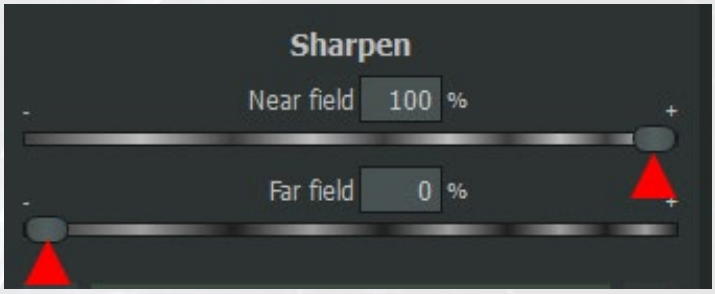


The further the sliders are moved to the **right**, the **warmer** the light appears; the further to the **left**, the **cooler** it appears.
A differentiated temperature mood of the foreground and background can lead to attractive picture moods ...

... as in the picture example, where the 'cool' foreground forms an attractive contrast to the 'warm' background compared to the original.

SHARPEN

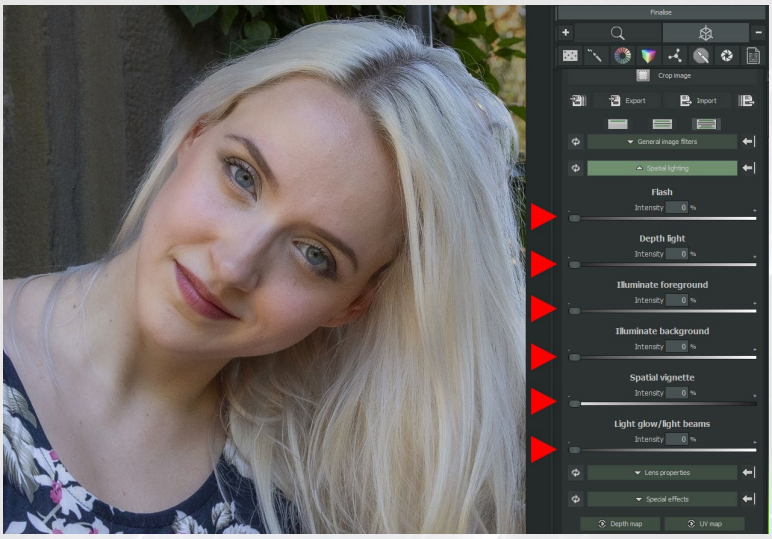
You can use the **Sharpness effect sliders** to sharpen the image motifs continuously and differently in the near and far range, thereby emphasising the main motif from the surroundings in a similar way to the contrast effect.



The two parameters on the left are in the '**zero position**' (**original** graphic above). In the image example, the main subject in the foreground, the eagle owl, should be sharpened, the background should remain unsharpened.

If the **Near field slider** is **set to 100%** while the **Far field slider** remains in the initial position, the result is as desired: the eagle owl stands out a little more sharply from the background, which could be further emphasised by darkening the background, for example.

6. Spatial lighting



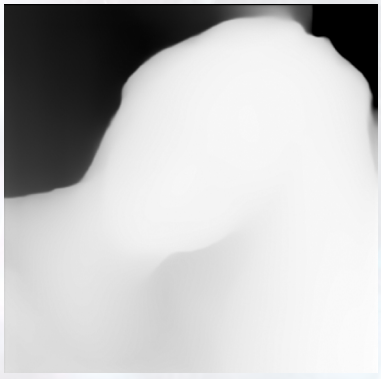
This category offers 6 image filters and effects:

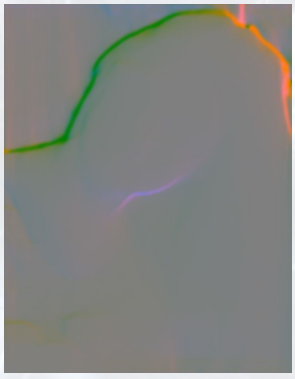
- **Flash**
- **Depth light**
- **Illuminate foreground**
- **Illuminate background**
- **Spatial vignette**
- **Light glow/Light beams**

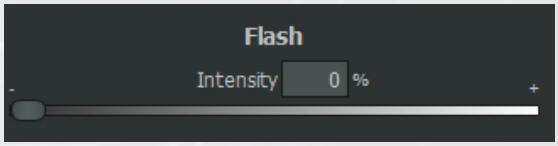
These spatial filters also utilise the direction of the lighting and, with the exception of deep light, offer windows in which you can define the position of the effect.

Flash

With this very complex filter, you can subsequently simulate a flash at the desired position. As in reality, the image becomes brighter at the front and darker at the back, and you determine the **focus of the lighting** with the desired **position of the flash**.

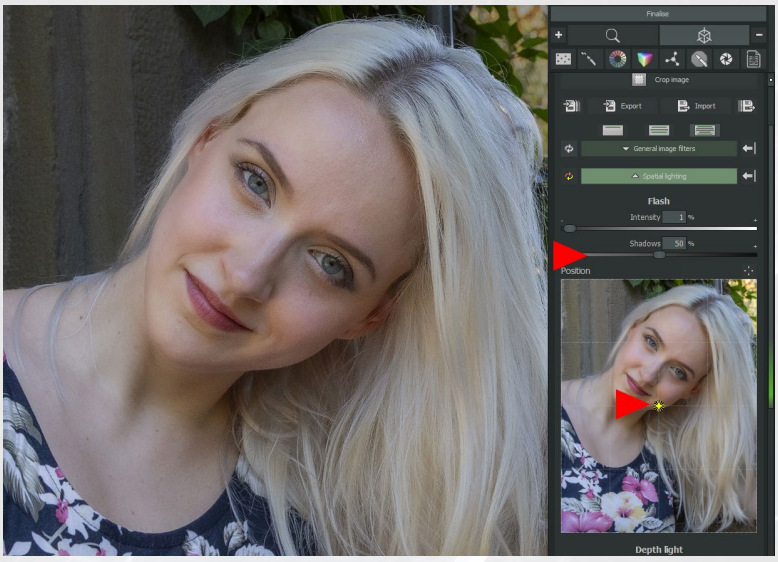






In the default setting, only the **Intensity** control is displayed, which you use to determine the **intensity of the flash**. The special feature is that, for example, a higher intensity increases the distance at the same time as the brightness, i.e. how **far back** the flash light ‘goes’.

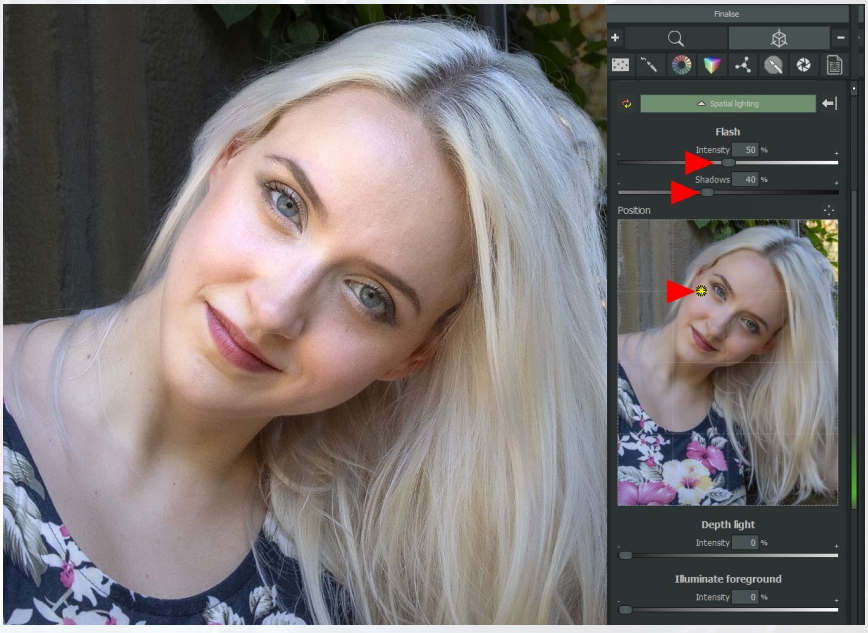
Show all parameters



If you move the intensity slider slightly to the right, the shadow slider and the position window are displayed.

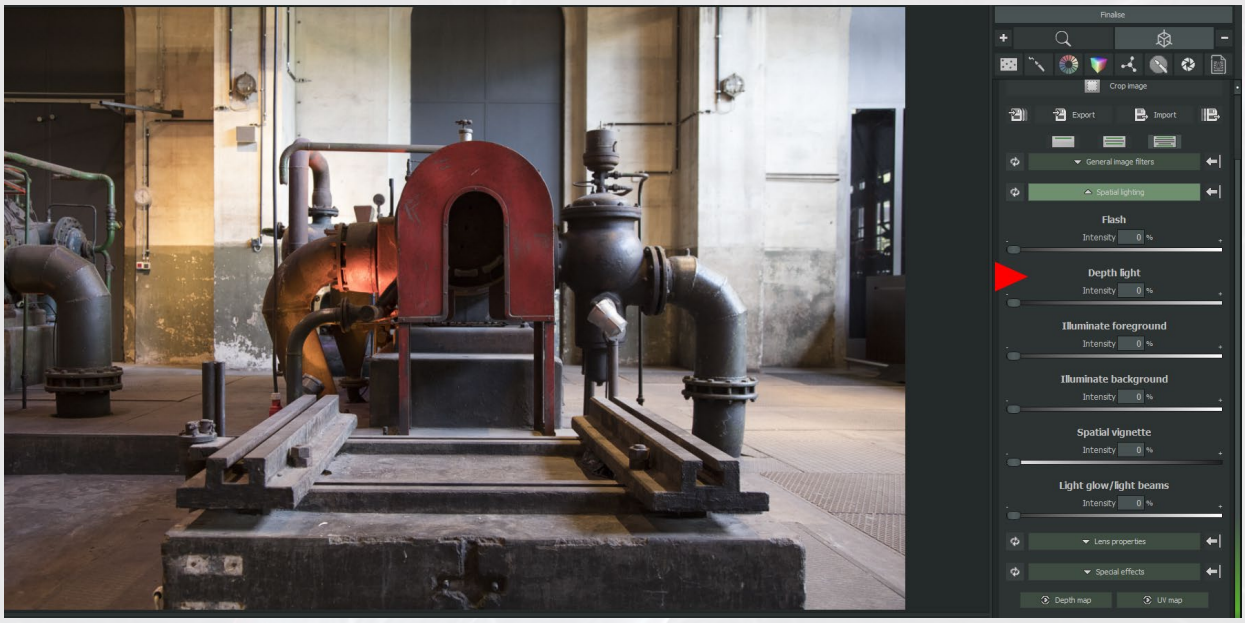
Shadows slider - lighting with shadow calculation: The **Shadows slider**, which is set to 50% by default, is used to determine the **intensity of the shadow cast** based on the flash. If you change the **position** of the flash, the shadow cast is also recalculated.

Position window: Use the left mouse button to drag the yellow position point, which is fixed in the centre by default, to the image position that effectively uses the flash and achieves the desired effect.

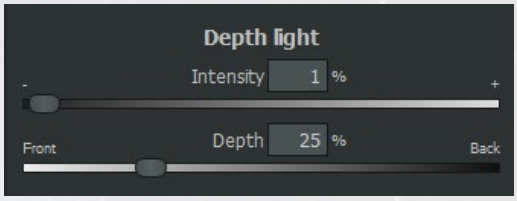


In the image example, the **Intensity slider** has been set to **60%**, the **Shadows slider** to **40%** and the position of the flash below the right eye, which results in the desired highlights on the forehead and cheek and gives the image more depth. If required, this effect could be enhanced with the **Spatial Vignette** effect, for example.

Depth light



With this very effective effect, you can practically ‘direct’ the light from front to back through the picture, ...

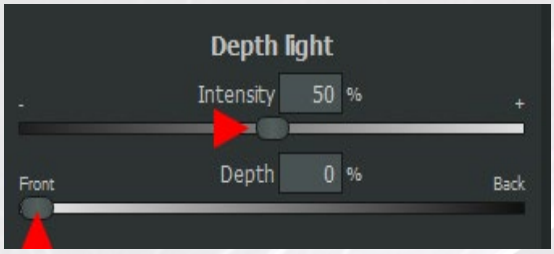


... because the depth light is orientated to the respective **depth map** of an invited motif and also takes into account the **reflections** of the light, e.g. from walls. The interplay between the ‘direct’ light and this diffuse light creates unique picture moods.

If you activate the **Spatial lighting** category, only the **Intensity** parameter, which is set to **0%**, is initially displayed (**Original** graphic above).
If you set any other value, the 2nd slider **Depth**, which is set to **25%**, is also switched on.

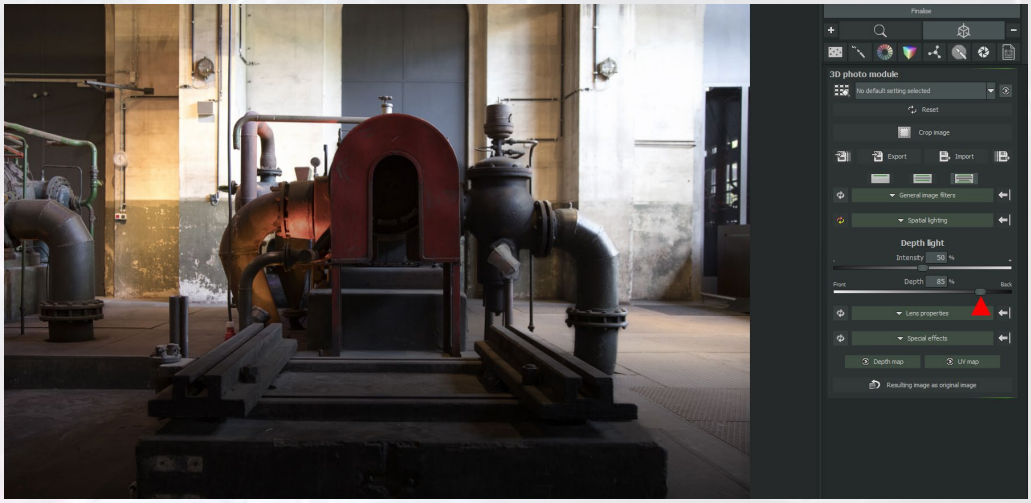
Note: If you click anywhere in a slider area and then use the **right/left** or **up/down** buttons, you will have an animation of the effect in increments of 10. Of course, this also applies to other effects.

Depth light Front



If the **depth light control** is in the **front** left position at a defined **intensity**, in the example **50%**, ...

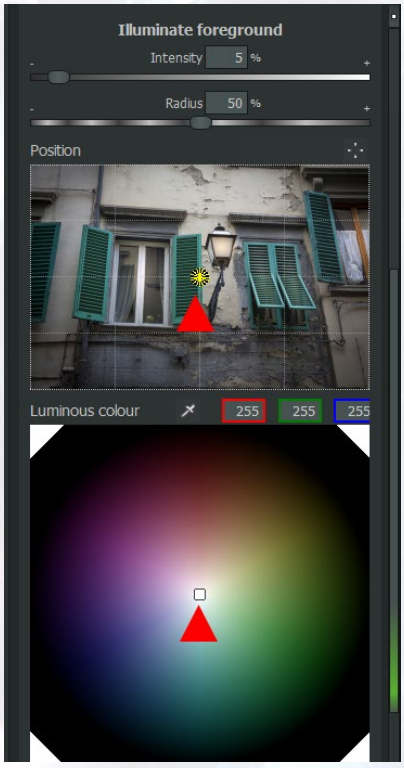
... the image is illuminated at the very front and a little behind where the **depth map is white**, i.e. directly in front of your eyes. Depending on the intensity set, the centre of the image and the background are increasingly darkened until the parts of the image where the **depth map is black are black at 100%.**

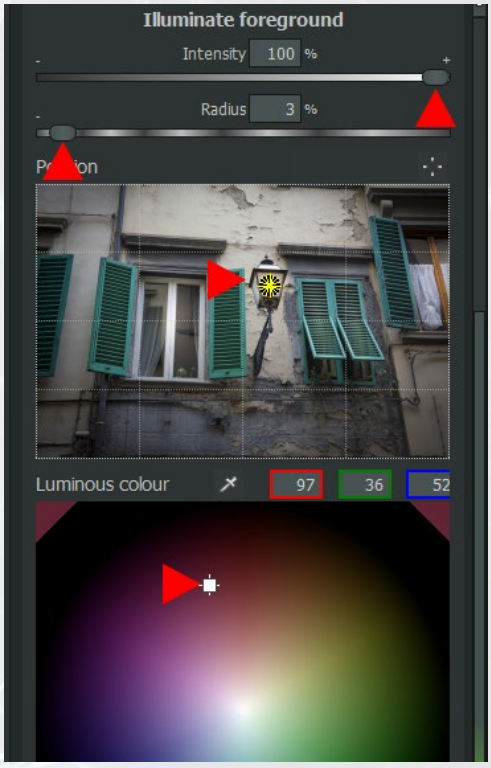


Depth light back: If the depth slider is set to the far right at the **back** or, as in the example, to **85%**, the background is illuminated where the depth map is black to dark, and in the **back** position and **100% intensity**, all parts of the image where the depth map is **white** would be practically black. In this case and depending on the subject, you would have an interesting **silhouette image**.

Illuminate foreground

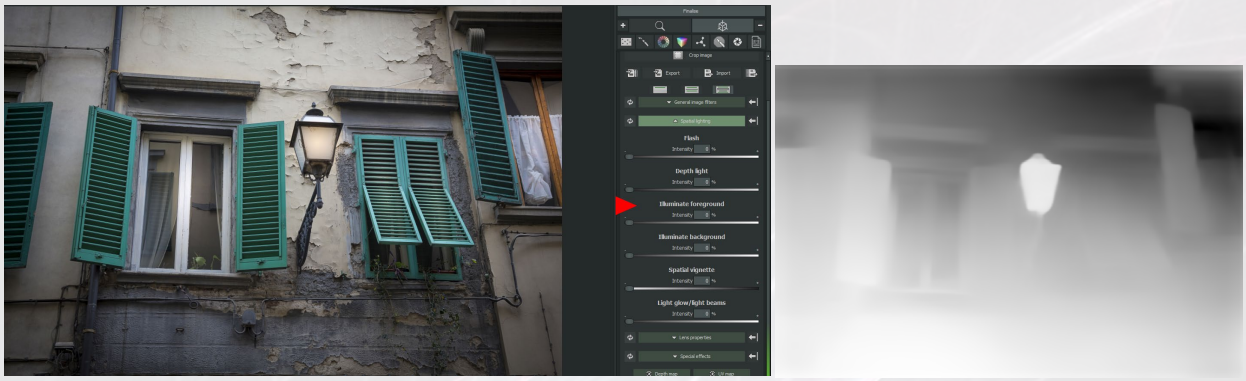
With this effect, you position a **light source** with an adjustable radius at a desired point in the **foreground** and can also **colour** this light source. This combination can turn ‘normal’ image motifs into exciting eye-catchers.





If you activate the **Spatial lighting category**, only the **Intensity** parameter, which ls set to **0%**, is initially displayed (**Original** graphic above).
If you set any other value, the **Radius** slider, which defines the radius of the light source, the **Position window**, in which the position of the light source is determined, and the colour sphere, in which you can select any colour from the **colour wheel** or a colour from the image using the **pipette**, are also displayed

Image example: ‘Switch on’ the light of the lantern



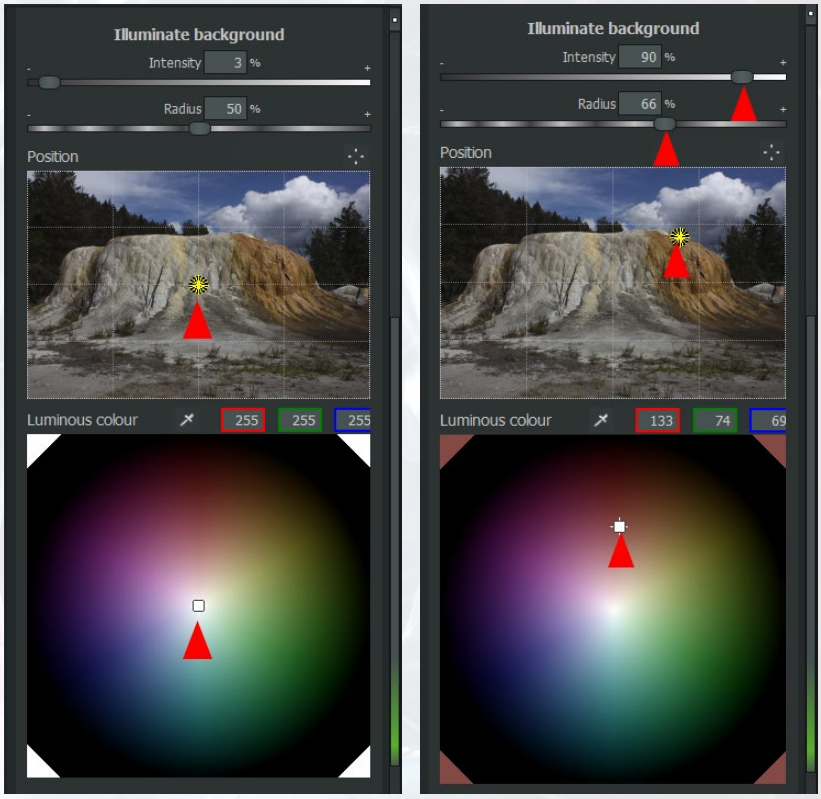
In the image example, the depth map shows that there is no very clear separation between the near and far areas. For example, you could relight and colour almost the entire front of the house if required.
However, it is usually much more exciting and effective to set a **spotlight**, which attracts the eye more than large-scale lighting.
The lantern on the house wall lends itself to a comparison of the original and the depth map:

With the parameter settings set on the previous page
- Intensity 100%
- Radius 3%
- Position of the light source in the foreground on the lantern
- Selection of a light colour from the colour wheel, you can create an eye-catching lighting effect in a flash.

Note: By holding down the mouse button, you can move through the image in the position window like a mobile spotlight and determine the desired position of the light source.

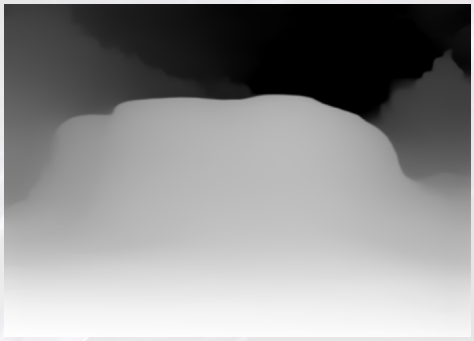
Illuminate background

This effect is practically the 'twin' of the **Illuminate foreground** filter.
With this effect, you position a **light source** with an adjustable **radius** at a desired point in the **background** and can also **colour** this light source. This combination can also conjure up exciting picture moods and picture looks from 'normal' picture motifs.



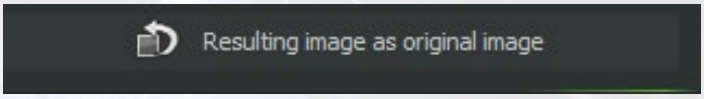
If you activate the **Spatial Lighting category**, only the **Intensity** parameter, which is set to **0%**, is initially displayed (original graphic above).
If you set any other value, the **Radius** slider, which defines the radius of the light source, the **Position window**, in which the position of the light source is defined, and the **colour sphere**, in which you can select any colour from the **colour wheel** or a colour from the image using the pipette, are also displayed.

Image example: Making the background more ‘dramatic



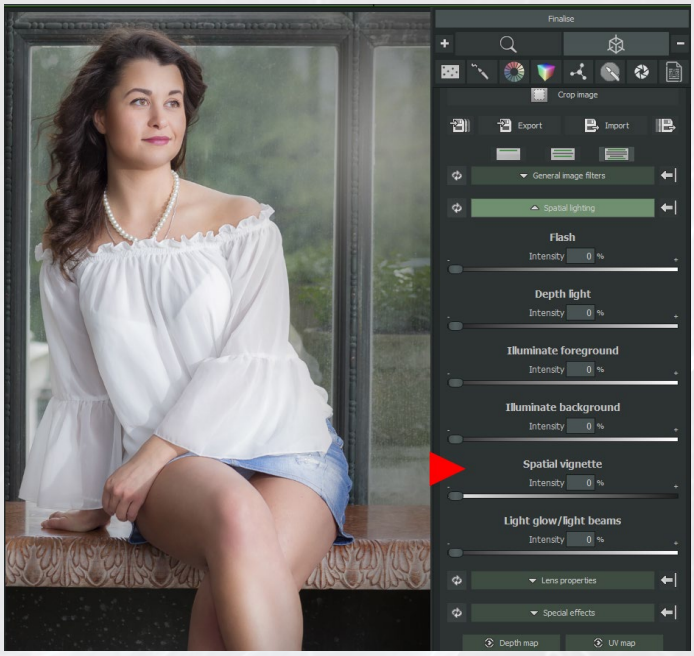
In the image example, the depth map shows a clear separation between the near and far areas. This makes it easy to give the sky a different, more exciting character with the cloud image.
The reflected diffuse light at the transitions bathes the mammoth in a somewhat mysterious light, which makes the character of the image even more interesting.

With the parameter settings set on the previous page
- intensity 90%
- radius 66%
- position of the light source in the background behind the Mammoth
- selection of a light colour from the colour wheel, you can create the ‘change of mood’ of the background in a flash.

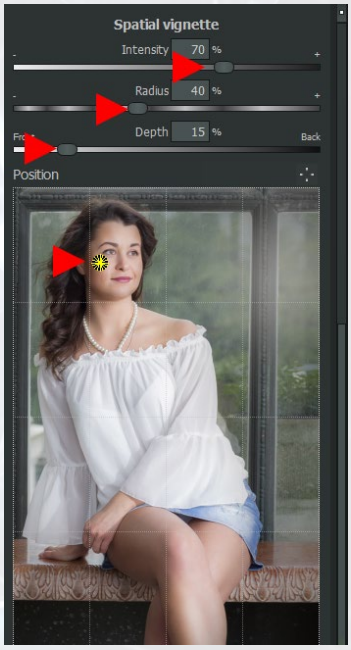


Note: If you want to set the effect twice or more times for **Illuminate foreground** and **Illuminate background**, create a ‘new’ original by clicking on **Resulting image as original image** (see Selective drawing guide) and set the lighting effects again as desired. Of course, this option also applies to other filters.

Spatial Vignette

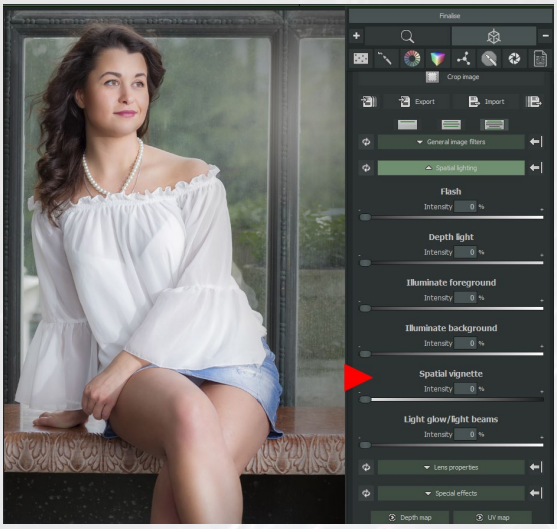


Compared to 'normal' vignettes, which are usually round or oval with light falling on one plane, the **Spatial vignette** in **Photo 3D** is a **sphere of light** with the consequence that the light decreases from the centre to the sides, upwards and downwards and forwards and backwards. This makes this vignette much more effective than a 'normal' one.

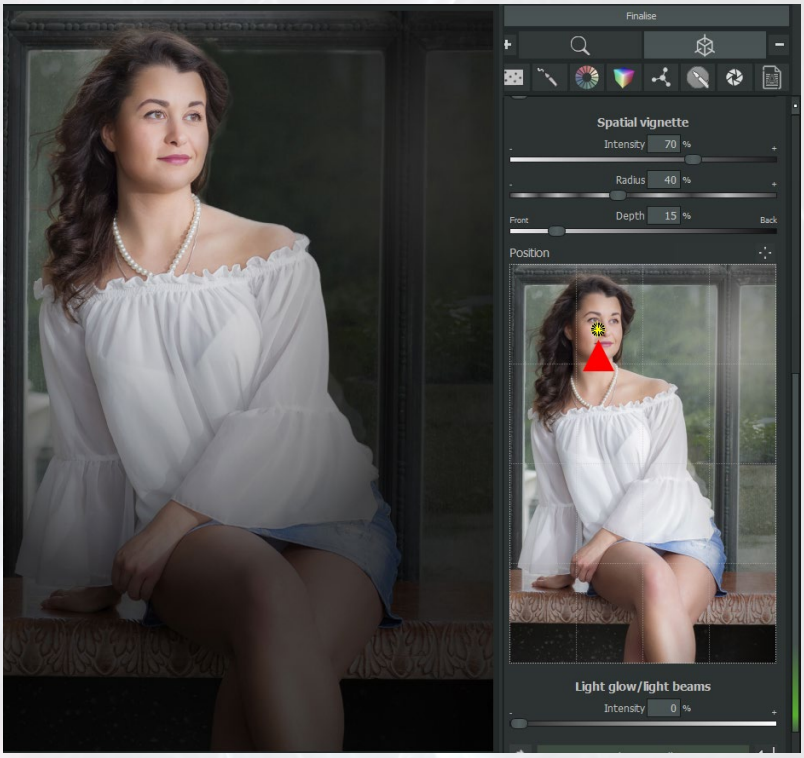


If you activate the **Spatial lighting** category, only the **Intensity** parameter, which is set to **0%**, is initially displayed (**Original** graphic above).
If you set any other value, the Radius slider, which defines the radius of the vignette, and the **Position window**, in which the position of the vignette is determined, are also displayed.

Image examples: Spatial vignette front, centre and back



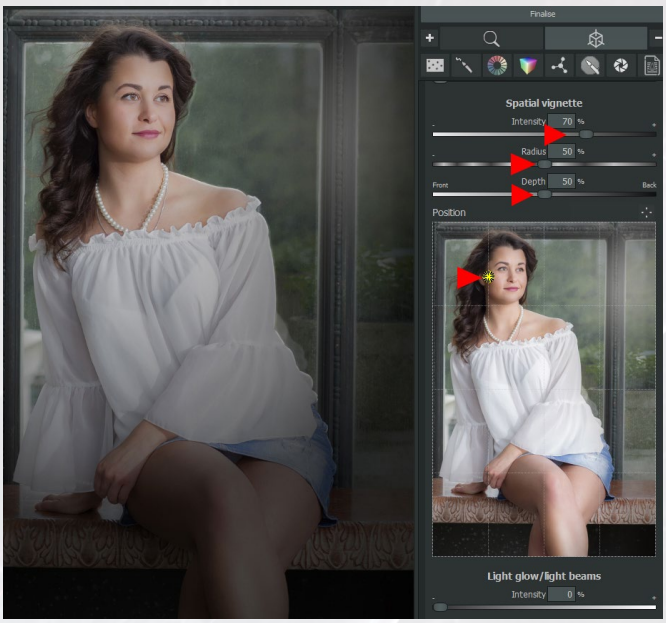
The displayed depth map serves as an orientation aid to show which parts of the image are in the foreground and background.



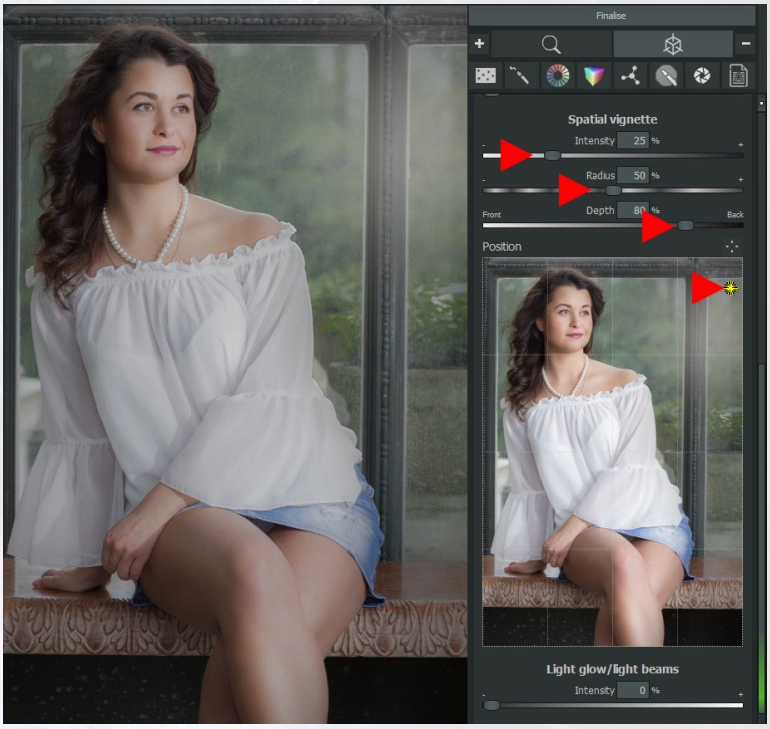
Use the parameter settings set on the previous page
- Intensity 70%
- Radius 40%
- Depth 15%
- Position of the light source below the right eye

to focus on the desired part of the image of the main subject. The **Depth** parameter determines the depth of the spatial centre of the vignette: If, for example, you set the slider to a low value, i.e. at the **front** as in the graphic, you can virtually 'drive through' or 'expose through' the image in the position window and define the desired effect.

Picture examples: Spatial vignette centre and rear



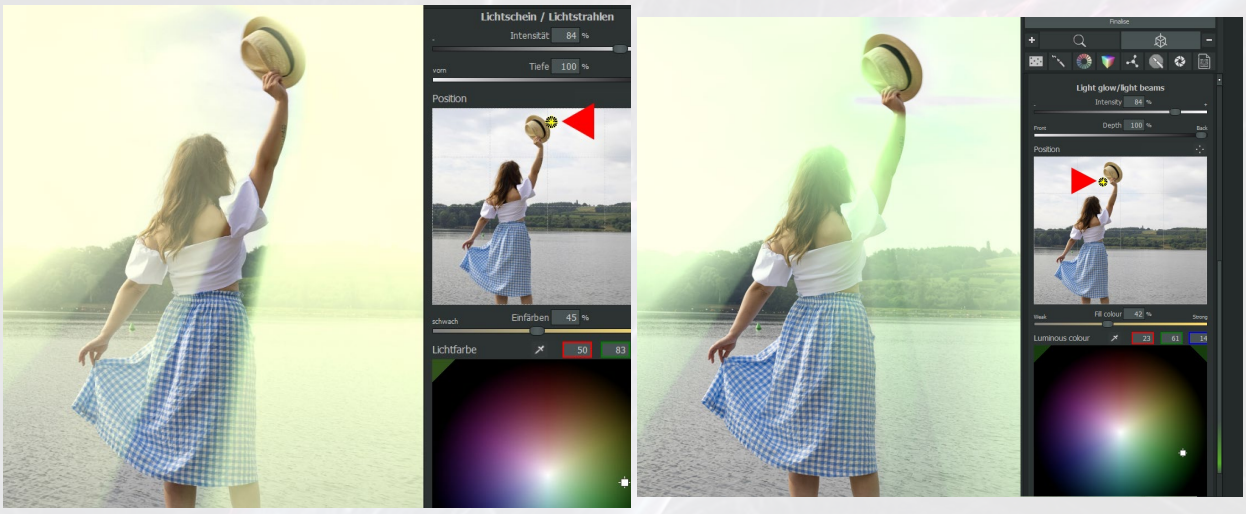
This allows you to quickly create any number of image mood variants using the various slider combinations or shifting the vertical and horizontal position of the vignette centre point. In the example, the **centre position** of the **depth slider** with the parameter settings determines the effect of the spatial vignette.



In the 3rd example, the **Depth slider** is set to **80%** on the far right, the sliders for **Intensity** to **25** and **Radius** to **50%**, which gives the impression that the light is coming from the back left (as seen from the model), which increases the spatial effect and makes the image more exciting, because the light 'falls off' on the right half of the face and makes it darker compared to the left half of the face.

Light glow/Light beams

This extraordinary filter calculates light rays (‘godrays’, rays that shine through the clouds or twilight rays) depending on the light source that emits the light rays.



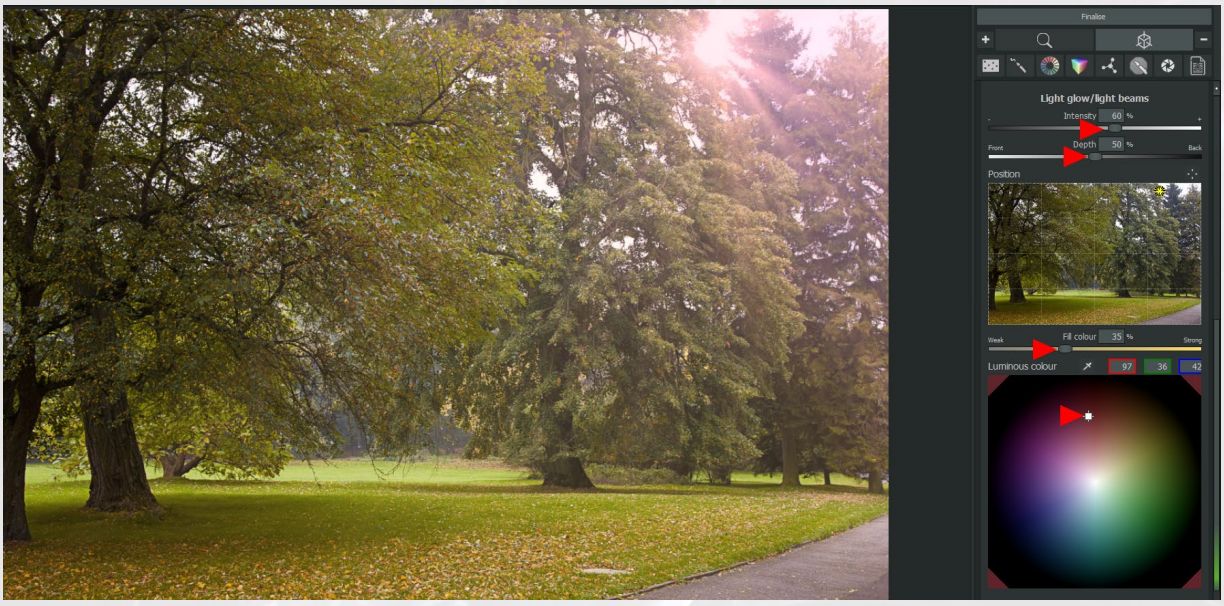
The deliberately exaggerated example with coloured light rays is intended to illustrate this: With every change of position of the light source in the position window, e.g. from **behind** an object such **as** the hat (graphic on the left) or **on** the hat to a position in front of an object such as the hat in the graphic on the right, the simulation of the light source in the image motif also changes with the ray effects and the corresponding **shadow cast**.

This results in a very realistic and natural-looking glow.

In the graphic on the left with the light source **behind the hat**, the head is largely excluded from the rays. If the light source moves **in front of the hat**, the head and shoulders are also covered by the light rays, while the skirt is more excluded.

If you activate the **Spatial lightning category**, only the **Intensity** parameter, which is set to **0%**, is initially displayed.

Set parameters



If you set any value for this parameter, all setting options are displayed:

- **Intensity**: Determines the strength of the light beam, 60% in the example.
- **Depth**: Determines the room depth at which the light source for the light beam should be located, i.e. more at the front (strong light beam) or further back (weak light beam), in the example 50%.
- **Position window**: Use the crosshairs to determine the desired position of the light source, in the example at the top right behind the trees.
- **Colour**: Use this slider to fade in a selected colour in the set strength in the light glow effect. The colour can be selected in the colour wheel or with the pipette from a part of the image. In the example, a colour strength of 35% is set. If the slider on the left is set to weak, the colour is generated from the image.
- **Colour sphere**: If required, select the desired colouring of the glow here, in the example a reddish tone.

If the **depth slider** is moved **backwards** (**80%** graph on the left), the light becomes **weaker** and **weaker** until it is only visible behind the trees at the **back**. The further it is moved **forwards** (**30%** graph on the right), the more dominant it becomes, until it practically outshines the entire image at the **front**.

Further image examples

If the light shines through trees in landscape shots, these are of course particularly attractive motifs for this effect.

The 2 further examples show that the use of this filter can also lead to unusual light/image moods with other types of motifs.

7. Lens properties

3 image filters or effects are offered in this category:
- **Depth of field/bokeh**
- **Tilt-shift blur**
- **Focal distance**

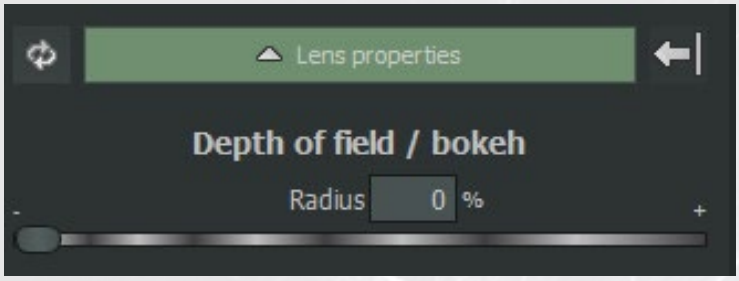
Depth of field/bokeh

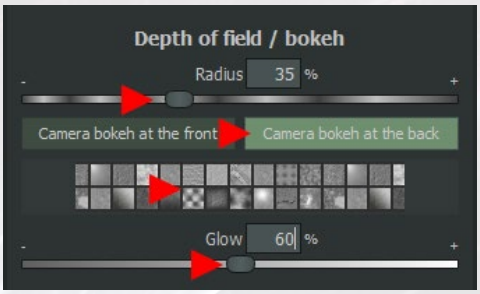
This effect uses the depth information of a loaded image file to create a very realistic-looking **artificial blur with a special depth effect and very good quality of this blurred area, a beautiful bokeh**.

This blur with adjustable expansion, which you can achieve manually on the camera by selecting a very open aperture and the longest possible focal distance, can be easily achieved in **Photo 3D** with 2 sliders and, if required, the selection of a different **bokeh texture**, with which you can quickly vary **the way in which the points of light are to be depicted in the blurred area**.

The resulting images simply impress with a beautiful picture look or additionally emphasise the main subject from the rest of the picture with a deliberately selected blurred area in the foreground or background.

Camera bokeh at the back





If you activate the Lens properties category, initially only the Radius parameter, which determines the size of the camera bokeh and is set to 0%, is displayed. By clicking on the slider or entering a value, the other options become visible:

- **Camera bokeh** at the back (default)/Camera bokeh **at the front**.
- **Prefabricated shapes for the camera bokeh**: Click on the texture button to display the window with the range of shapes.
- **Lights**: **Sets the luminosity of the bokeh**.

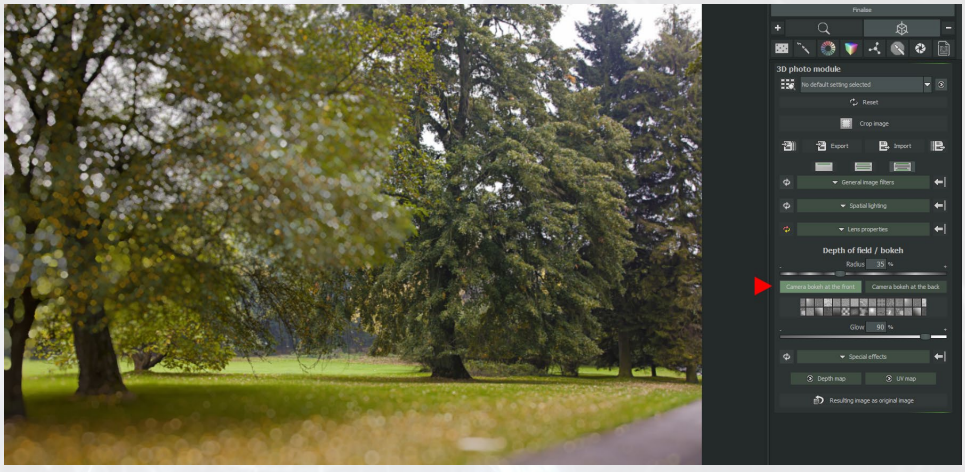
In the image example with the set parameters (see also graphic above right), the background has a very nice bokeh ...

... with the default round shape. The currently selected shape is outlined in green. Clicking on a different shape immediately applies it to the camera bokeh **at the back**.

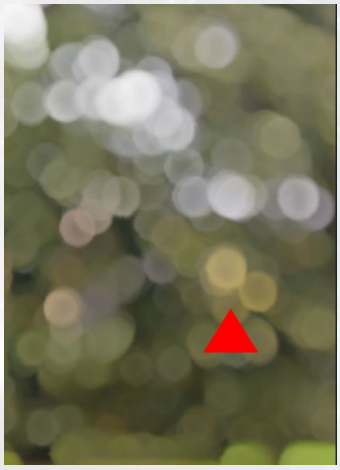
Camera bokeh at the front

Clicking the Camera **bokeh at the front** button 'moves' the depth of field with the bokeh from the back to the front. The parameters have been deliberately chosen to be **identical to Camera bokeh at the back**.

Varying bokeh shapes



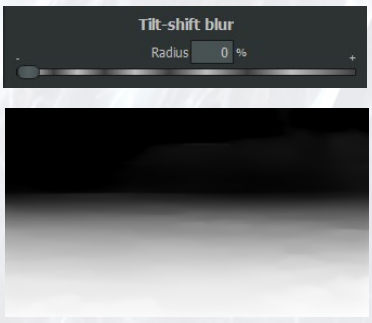
For this motif, choose a star shape, for example ...



... you can clearly see the difference with the radius and light control fully open, which makes it easier to choose an alternative mould.

Tilt-Shift blur

With this creative **tilt-shift effect**, which simulates a greatly reduced depth of field with a **bokeh effect in the image above and/or below the desired sharp subject area with a blur**, you can create a 'miniature world' in a flash.
This **combination of the blur effect for tilt-shift processing works in principle with all subjects**, but is particularly effective with images such as the one in the example, which were photographed from top to bottom or at an angle.
The **reference to the depth map** not only enables blur gradients that are orientated on a horizontal line as in the example, but also **all other conceivable gradients** and makes this effect extraordinary.



If you activate the **Lens properties** category, initially only the **Radius** parameter, which determines the **size** of the camera bokeh (how far from the centre) for **tilt-shift shots** and is set to **0%**, is displayed.
By clicking on the slider, the other options become visible:

- **3 selectable effect areas**:
  Centre (default): places the sharp area of the effect on the **centre of the image**, everything in the foreground and background is blurred - **with bokeh**.
  Back: Sets the **sharp area** to the **back** of the image. Nevertheless, it becomes blurred again at the very back.
  Front: Sets the **sharp area** to the **front** of the image. However, there is still a narrow blurred area at the very front.
- **Predefined shapes** for the camera bokeh (see previous chapter Camera bokeh).
- **Lights: Sets the brightness of the bokeh**.

Image example Effect **centre**

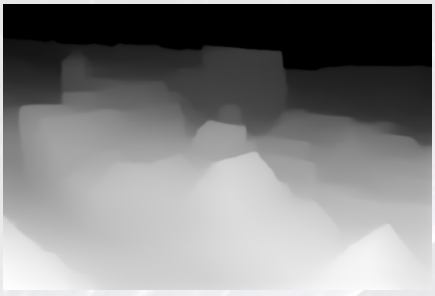
In the example with a view of the city skyline from above, there is a clear separation between foreground and background with a narrow ‘transition area’ in the centre of the picture.

This impressive result is achieved by selecting the **centre** focus area and the parameter settings **Radius 80%**, **Lights 80%**: The narrow centre image area can be **further narrowed** (to the right) or **widened** (to the left) as required using the radius control.

E

quickly switch the focus to other parts of the image with completely different image statements.

Image examples Effect **front**



In the 2nd image example, there is no clear separation between foreground and background and no clearly defined ‘transition area’, as the depth map shows.

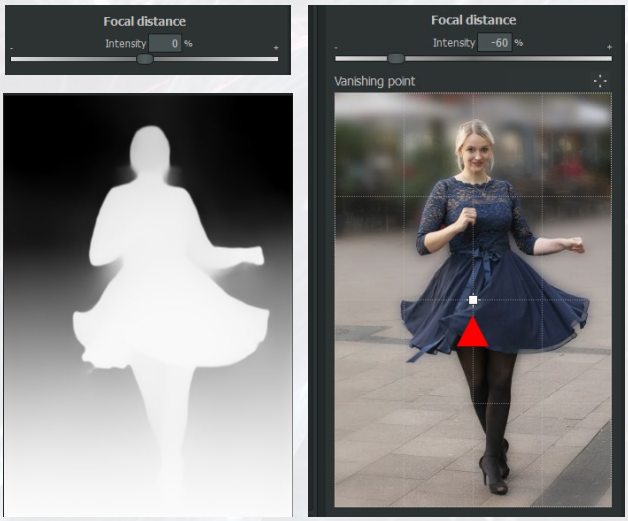
The result looks just as impressive when the focus range is set to **Front** and **Radius 95%, Lights 80%** ...

... as in the 3rd image example with also not clearly defined transitions.

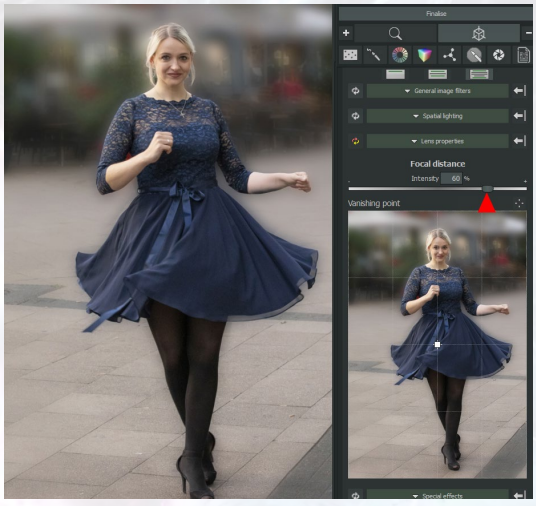
If you select the focus area **Front** again and the **radius 90%, lights 80%,** the illusion of a miniature world is perfect and could also be a shot of a model railway, for example.

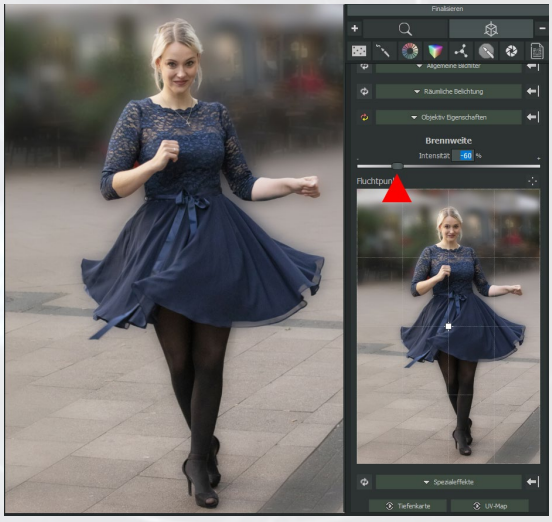
Focal distance

This spatial effect is very special because you can **subsequently adjust the focal distance on the camera**, with spatial, perspective distortion.
With these adjustable focal length changes, you can bend an image subject forwards, more to the rear or, in conjunction with the vanishing point, also to the left or right (parallax effect).
This filter works particularly well for images with **good recognisable vanishing points.**



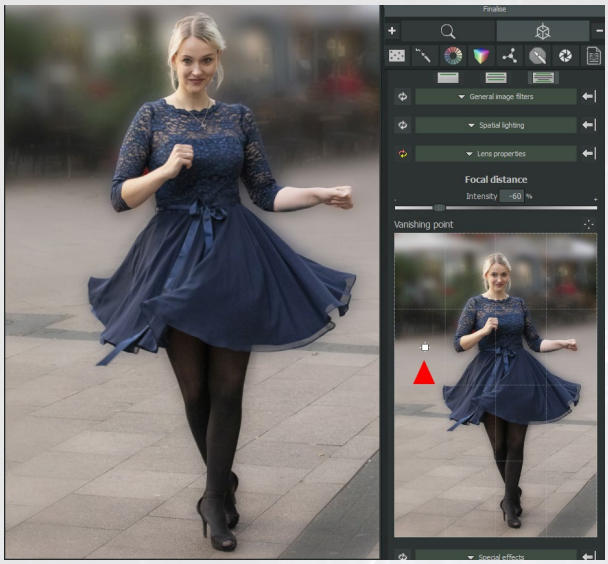
If you activate the **Lens properties category**, only the Intensity parameter, which is used to set the **intensity** of the focal distance change and is set to **0%** by default, is initially displayed.
Vanishing point window: Clicking in the slider also displays the **Vanishing point window**. The crosshairs are in the centre by default.

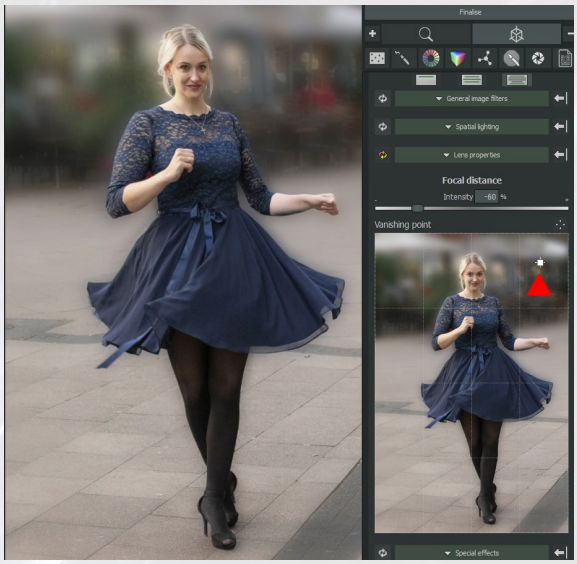




Change radius: If you move the radius slider to the **right** into the **positive range**, in the example **+60%**, the subject is 'brought forwards' slightly and bent backwards, which can be easily recognised here by the **head tilted backwards**.
If you move the slider to the **left** into the **negative range**, in the example **-60%,** the subject is also 'brought forwards' slightly and tilted forwards (bent), clearly recognisable here by the **head tilted forwards**.

Move centre point

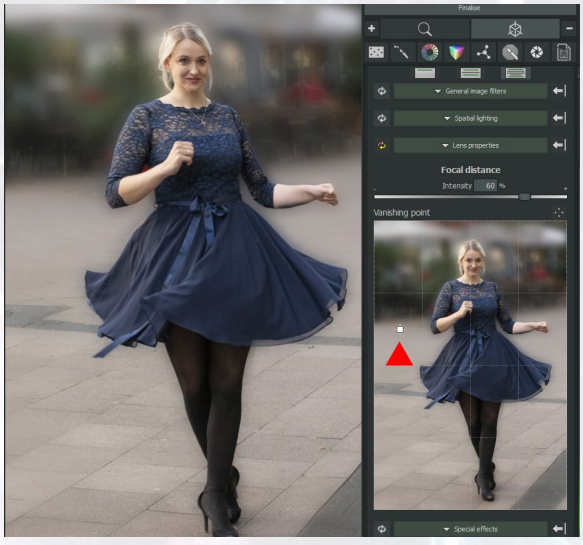


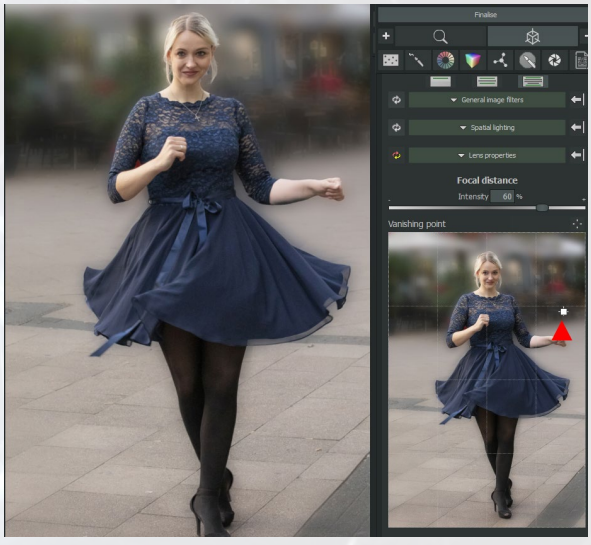


Intensity -60%: If you move the centre point in the vanishing point window to **the left** (**to the right** of the model) with negative intensity, the subject moves **in the same direction**, which can be clearly seen here on the head (diagram on the left).

If you move the **centre point to the right** (**to the left** of the model), the subject **also** moves in this direction, again clearly visible in the direction of the head.

If you move the centre point to the left/up or left/bottom or right/bottom, right/up at the same time, the subject will be more distorted.





Intensity +60%: If you move the centre point in the vanishing point window to the **left** (**to the right** of the model) when the intensity is **positive**, the subject moves in the **opposite direction to the left**, which can be clearly seen here on the head (diagram on the left).

If you move the centre point to the **right** (**left from the model**), the subject also moves **in the opposite direction**, again clearly visible in the direction of the head.

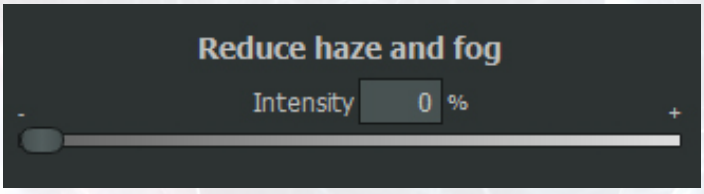
If you move the centre point to the left/up or left/bottom or right/bottom, right/up at the same time, the subject will be more distorted.

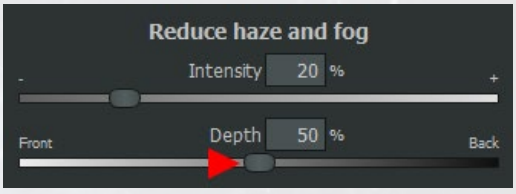
9. Special effects

This category offers 6 image filters and effects plus a special highlight: With the **Anaglyph view** activated, you can see your image motifs in an impressive **3D view** and only need glasses.
- **Reduce haze and fog**
- **Add blue**
- **Colour gradient at the front/back**
- **Fog**
– **Aura**
- **Air shimmer**
- **Anaglyph view** (red-cyan)

Reduce haze and fog

This filter **automatically reduces haze and fog in depth**.
Automatic means that you no longer have to think about how to exclude certain parts of the image, such as the foreground, from the correction if the fog should still be visible there (or vice versa).

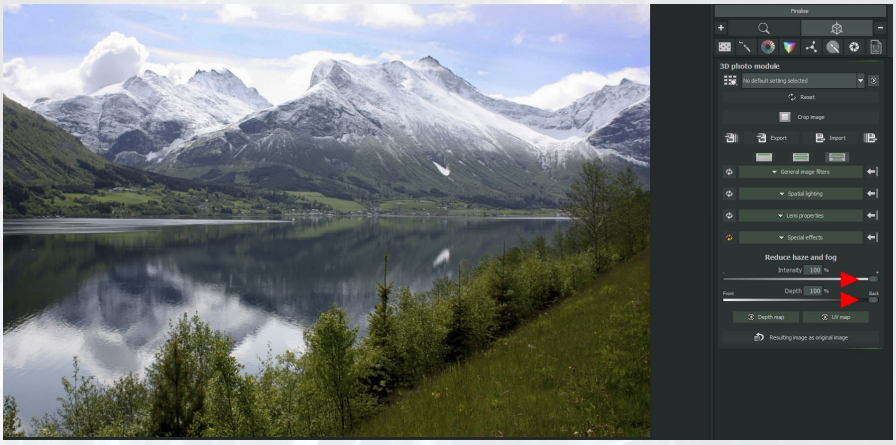




If you activate the **Special effects** category, initially only the **Intensity** parameter, which you use to set the **strength of the reduction** and which is set to **0%** by default, is displayed.
Click on the slider to display the 2nd parameter:
Depth: Use this slider to specify how **far** forwards in the subject the haze and fog correction should be applied: If the slider is set at the **Back**, the reduction only affects the **background**. The further the slider is moved **forwards**, the more the area towards the front is extended and, if it is set to the **front**, practically the entire image is affected.
Haze/fog can be intended as a stylistic or atmospheric element. Here you can quickly and easily realise your ideas with 2 sliders.

Image example

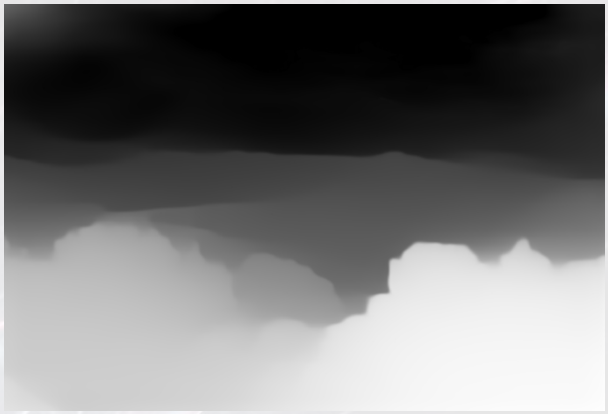
Reduce haze and fog **back**: In the original, the mountains and the sky are shrouded in mist and fog.



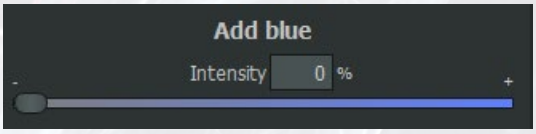
Depth control at the back: If the **Intensity slider** is set to **100%** and the **Depth slider** to the **Back**, the view of a blue sky becomes clear and the snow-covered mountains take on a recognisable structure. The lake in the foreground still has the slight haze as in the original.

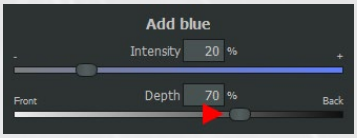
Front depth control: If the depth control is set to **front**, the mountains are clearly reflected in the lake and the entire image is ‘unveiled’.
This allows you to quickly control the desired image look individually using **all the variations between back/front and the selected intensity**.

Add Blue



This filter is not a normal blue filter that applies a subtle to strong blue over an image motif; the special feature is indicated by the name when you click on one of the interactive buttons: This filter creates an **atmospheric blueing** that looks backwards towards the mountains, as in the image example, as if the viewer were looking through the atmosphere. In this way, you can quickly create very individual, exciting or mysterious image moods.





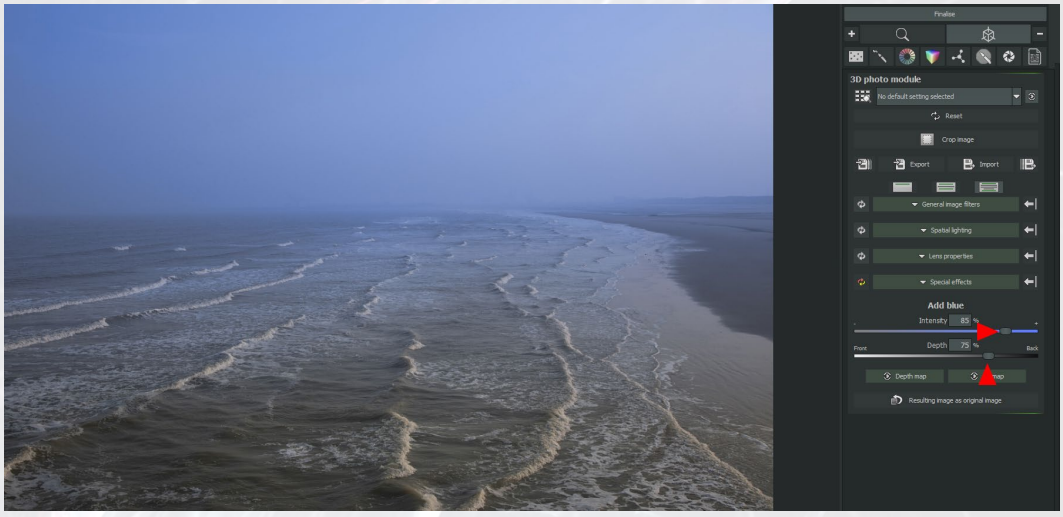
If you activate the **Special effects category**, initially only the Intensity parameter, which you use to set the **intensity** of the **atmospheric blueing** effect and which is set to **0%** by default, is displayed.
Click on the slider to display the 2nd parameter:
Depth: Use this slider to specify how far **forwards** in the scene the blueing should be calculated and applied: If the slider is set to the far right at the **back**, the effect only works on the **background**. The further the slider is moved towards the **front**, the more the blueing is extended to the front and the blue practically covers the entire image at the front, which is of course rarely desirable.

In the 1st image example, the **intensity** has been set to **100%** for better demonstration, the **depth slider** is set to **80%** so that some of the atmospheric blue in the distance still radiates onto the mountain range.

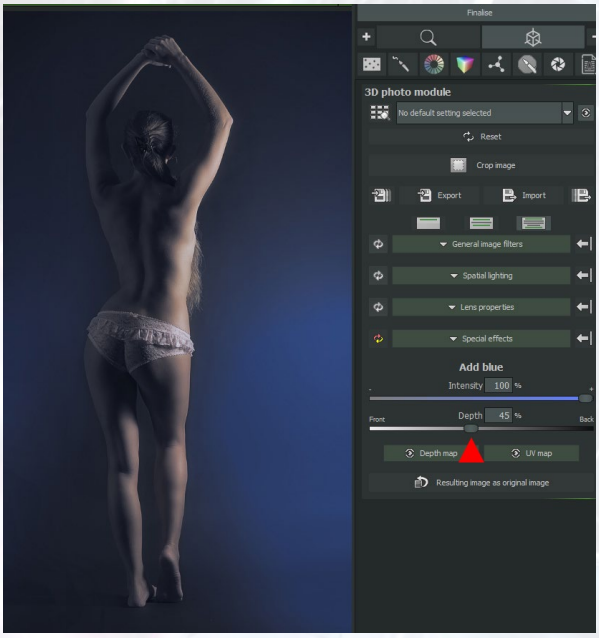
Further image examples

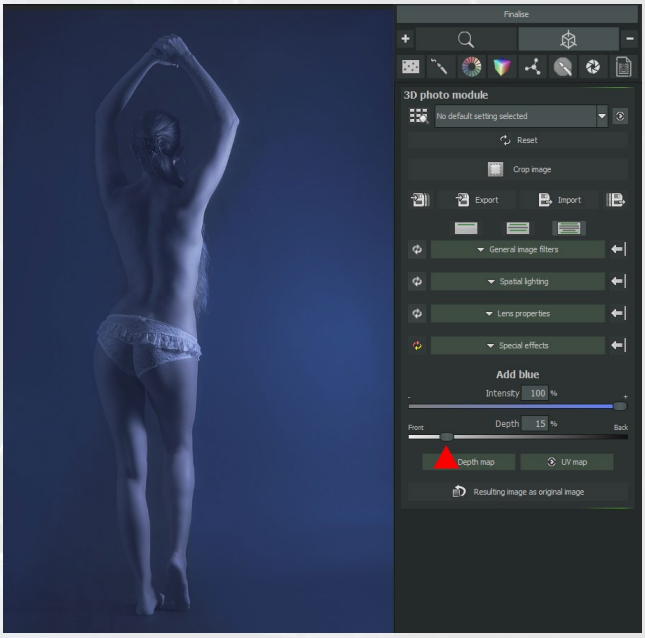



Even though landscape shots like the one on the previous page are particularly suitable for using this filter, ...



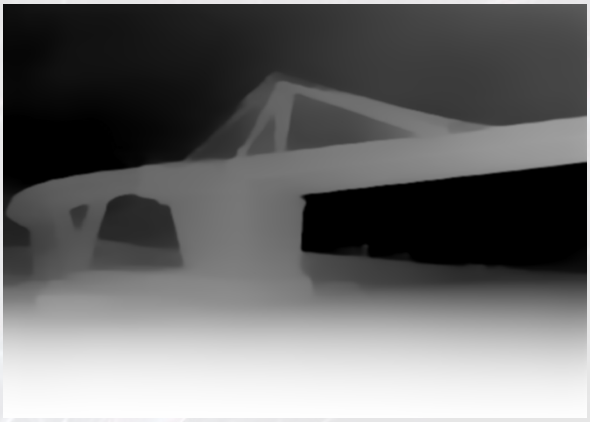
... are demonstrated by the examples shown here, ...



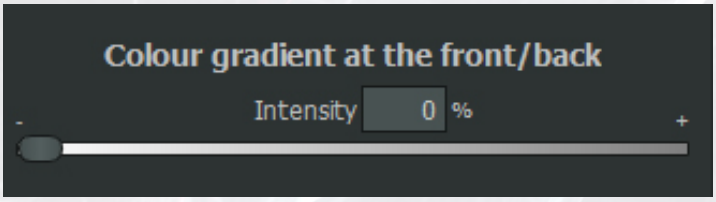


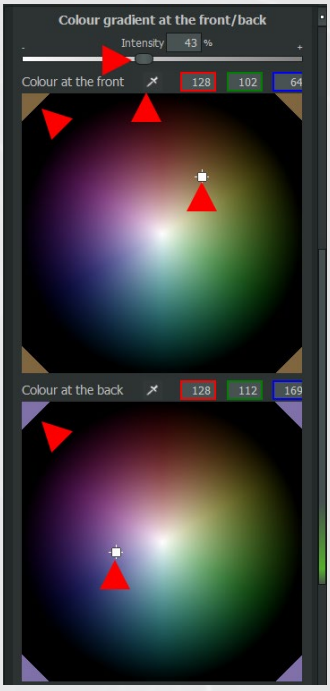
... that completely different types of motifs, such as the studio shot with a model here, can also be attractive applications with surprising image look twists. Here, the depth slider has been set to **45%** (diagram on the left), which results in a blue 'enhancement' of the background, and to **15%**, which effectively colours in the model and makes the image a little more mysterious and interesting.

Colour gradient at the front/back



With this filter, you can create individual colour gradients from the foreground to the background in a flash and create surprising picture looks in just a few seconds.

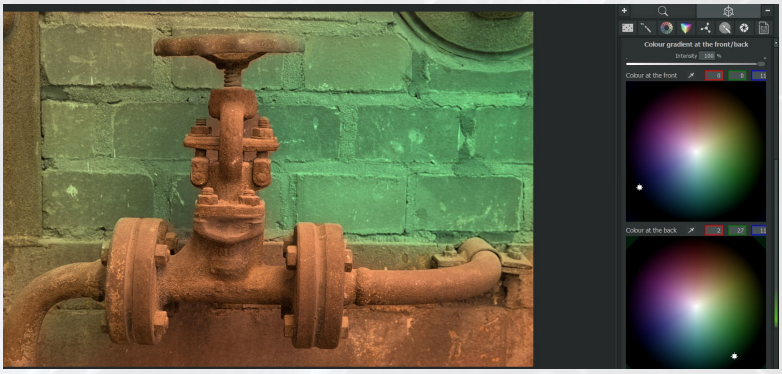




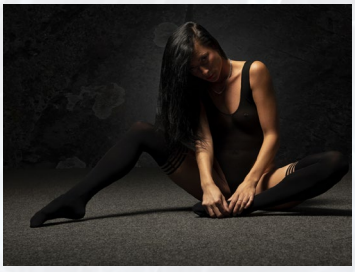
If you activate the **Special effects category**, initially only the **Intensity** parameter, which you use to set the **strength of the 3D colour gradient** and which is set to **0%** by default, is displayed.
If you click on the slider, you will also see the two colour spheres **Colour at the front** and **Colour at the back** with the respective colour circles.
Colour selection via the colour circle: The colour currently selected with the crosshairs is shown again in the corners for better recognition. Each time the crosshairs are moved, the new colour mood is immediately calculated and displayed in the image.
Colour pick-up from the image: If required, you can also select a colour from the image by clicking on the **pipette symbol**.

Further image examples

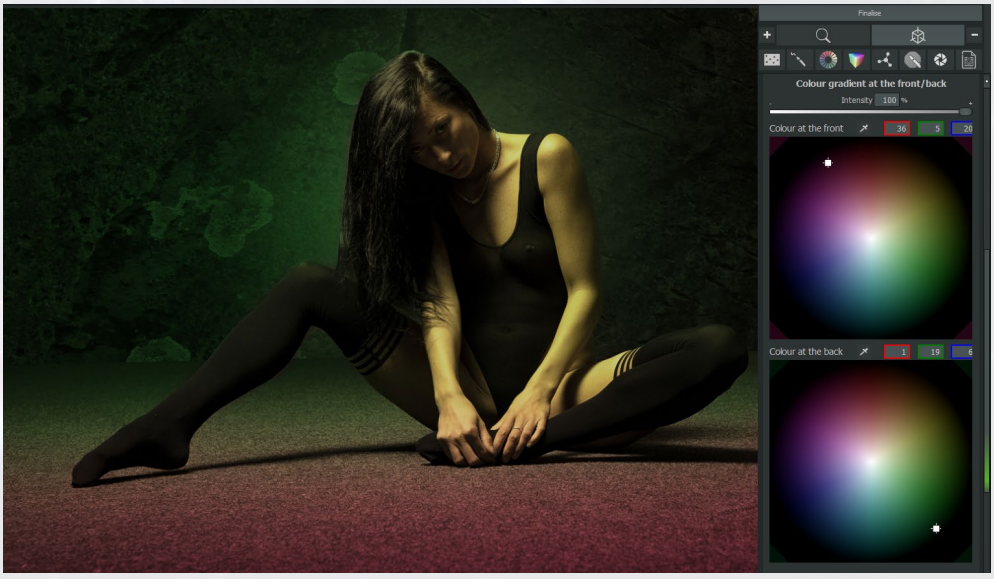

Of course, all types of motifs are suitable for experimenting with colour gradients.
Motifs that are almost monochrome can be made more interesting by using colour contrasts.



... how this industrial image can appear more exciting or surprising.

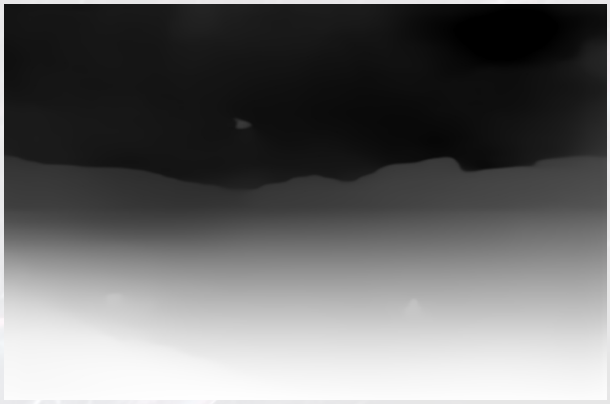



Colour gradients can make motifs against a dark background just as attractive ...

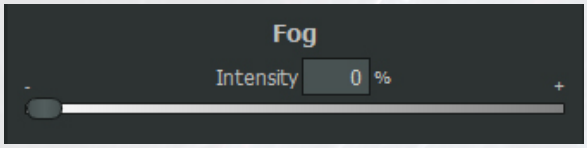


... as with this model in an especially mysterious mood.

Fog

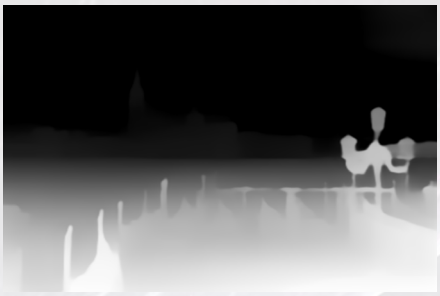


This filter delivers what it promises: it immerses desired parts of the image in light to heavy fog or covers the image with a haze.

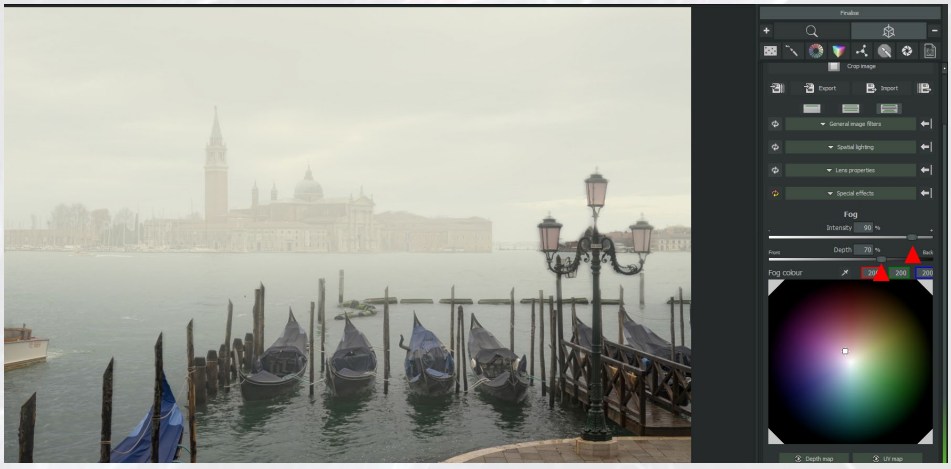


If you activate the **Special effects category**, only the **Intensity** parameter, which you use to determine how **densely** the fog should be calculated into the image and which is set to **0%** by default, is initially displayed.
If you click on the slider, the **Depth slider** and the **colour sphere** with the colour circle are also displayed.
Depth: Use this slider to specify the **image depth at which the fog should begin**: If it is set to the back, only the distance, the background is covered with fog. The further it is moved **forwards**, the more 'foggy' the **foreground** becomes. If it is set to the **front**, the entire image is covered in mist at a lower intensity, at full intensity, the mist is so dense that practically nothing can be seen.
Colour selection via the colour circle: The colour currently selected with the crosshairs is displayed again in the corners for better recognition. Each time the crosshairs are moved, the new colour of the nebula is immediately calculated and displayed in the image.
Colour pick-up from the image: If required, you can also select a colour from the image by clicking on the **pipette symbol**.

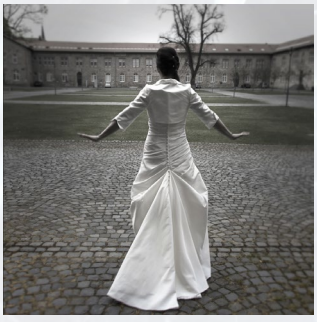
Further image examples

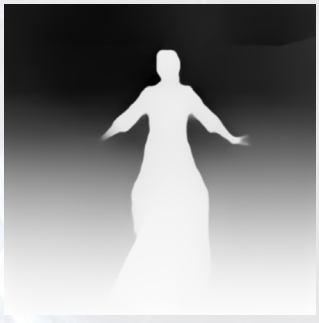


You can easily cover picture motifs with a very realistic-looking fog ...

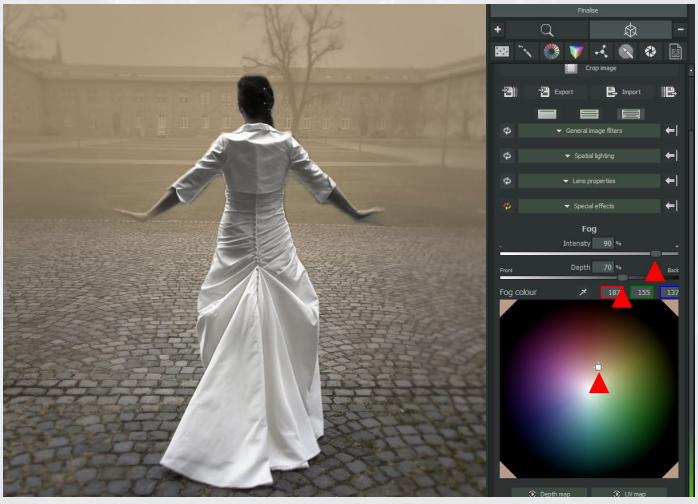


... like here, where the background 'sinks' into the fog.



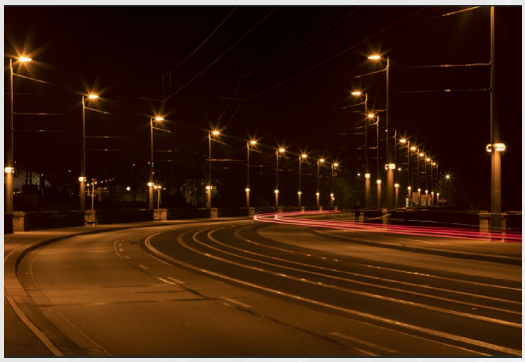


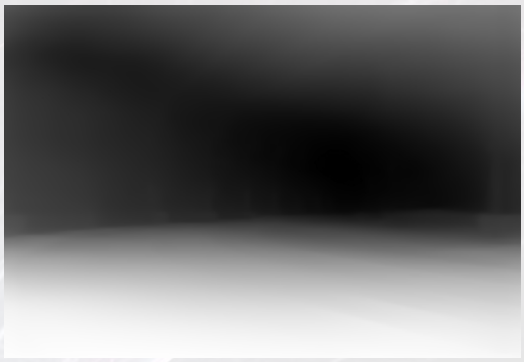
Or you can use the colouring options as a stylistic device ...



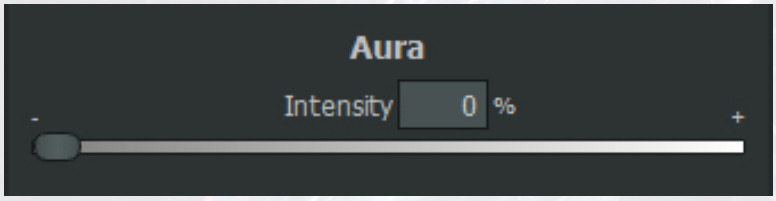
... as with this motif, to create a very individual picture mood.

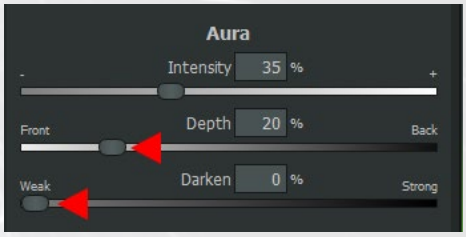
Aura



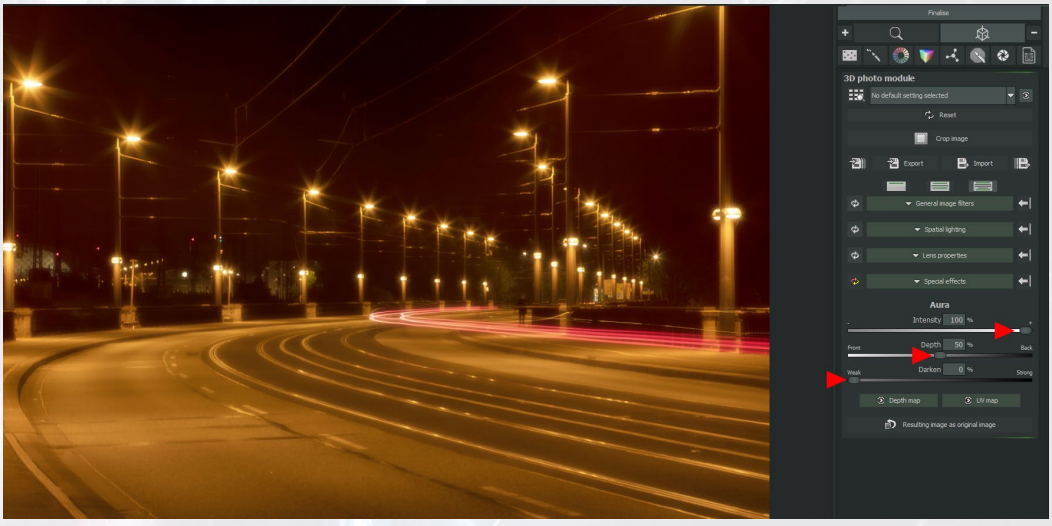


This aura light effect makes your pictures ‘shine’ and creates a luminous impression. Colours can ‘flow into each other’ at the borders to other colours and backgrounds can be effectively illuminated.





If you activate the **Special effects category**, only the **Intensity** parameter, with which you can set the **intensity for the lighting effect** on the image, which is set to **0%** by default, is initially displayed.



If you click on the slider, the **Depth** and **Darken** sliders are also displayed.
Depth: Use this slider to specify the image depth **at which the glow effect should begin**: If it is set to the **back**, the background is illuminated with the glow-like effect. The further it is moved **forwards**, the more the foreground is included in the aura effect.
Darken: Use this slider to determine the **level of darkening** and can thus visually increase or decrease the light effect slightly so that the image is not too bright overall, for example.

Further image examples

This aura light effect gives many different motifs an independent image character ...

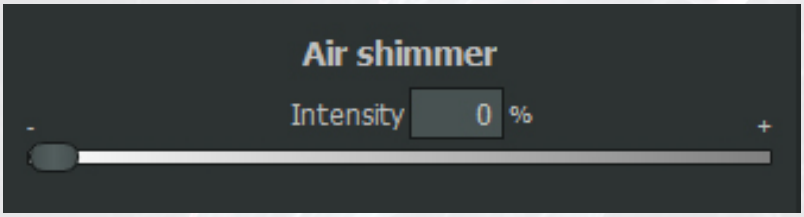
... as here in a landscape shot with the effect in the **foreground** ...

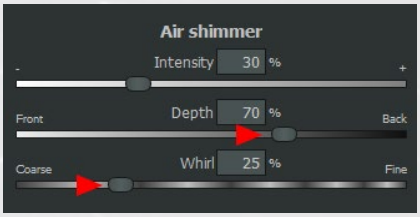
... or motifs where the effect used in the **background** ...

... effectively brightens this background and parts of the foreground, softens them a little and thus emphasises the main motif even more.

Air shimmer

This effect adds Air shimmer. This effect brings turbulence in the air into the picture, which is particularly effective with sand and desert motifs, for example, but can of course also be used with other types of motifs.



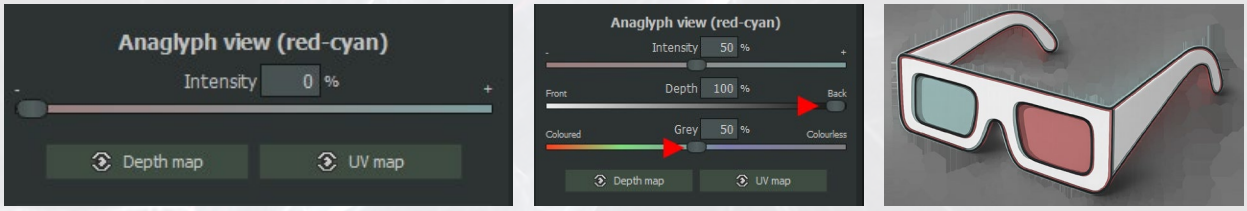


If you activate the **Special effects category**, only the Intensity parameter, with which you can set the intensity of the calculated air flicker, which is set to **0%** by default, is initially displayed.

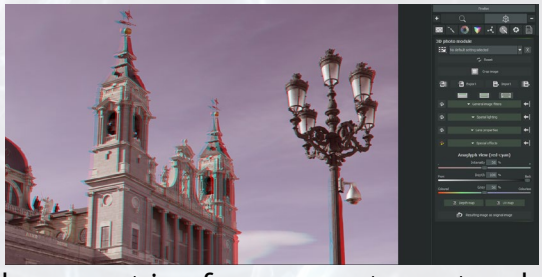
If you click on the slider, the **Depth** and Swirl sliders are also displayed.
Depth: Use this slider to specify the image depth at which the air flicker should begin: If it is set to the back, it affects the background. The further it is moved forwards, the more the foreground is included in the air flicker.
Swirl: Use this slider to control the strength of the air swirl from coarse (left) to fine (right).
Note: The difference to the original is clearly more visible on the screen than here in the document.

Anaglyph view (red-cyan)

If you own a pair of **anaglyph glasses** (available very cheaply), you will have a spectacular visual experience when the effect is active and the intensity slider is turned up, which you may only have had before in equally impressive films such as **Avatar** or **Gravity**: you will see all the loaded images spatially in 3D with all the depth levels of the corresponding **depth map** and information from the **UV map.**

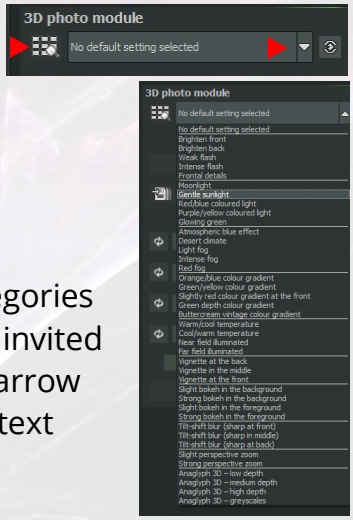


If you activate the **Special effects category**, only the **Intensity** parameter, with which you determine the **eye distance and therefore the strength of the anaglyph 3D impression**, which is set to **0%** by default, is initially displayed.
If you click on the slider, the **Depth** and **Grey** sliders are also displayed.
Depth: Use this slider to set the **depth of the centre point** for the stereoscopic anaglyph view.
Grey: You can use this slider to **discolour** the image down to a greyscale image if required.

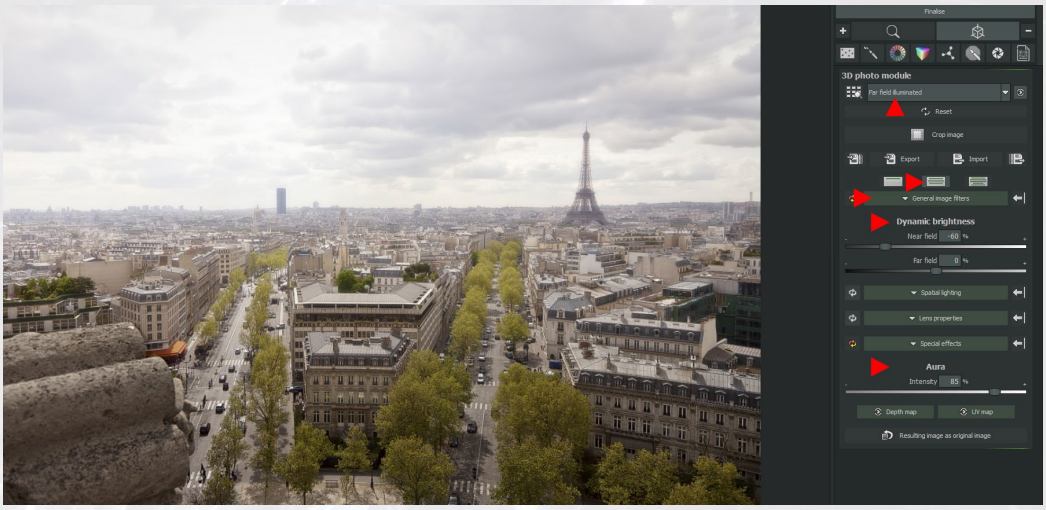


The result visible in the document is of course not spectacular. However, the same resulting image viewed through 3D glasses is all the more impressive.
Of course, all changes made to the filters are also taken into account in the 3D image.
The purchase of 3D glasses is therefore a highly recommended investment if you want to enjoy the unique effects of **3D photo module** to the full.
Note: With some motifs, the 3D image appears slightly darker than the two-dimensional original. If necessary, you can easily compensate for this by pulling up the two sliders **Near field** and **Far field** in **Dynamic brightness** in the **General image filters** area.

9. Automatic presets, filter combinations



If you want to quickly view suggestions in selected filter categories or combinations of several categories and apply them to an invited image, click the **No default setting selected** button or the arrow next to it. All currently available presets are listed in the context menu that then opens.



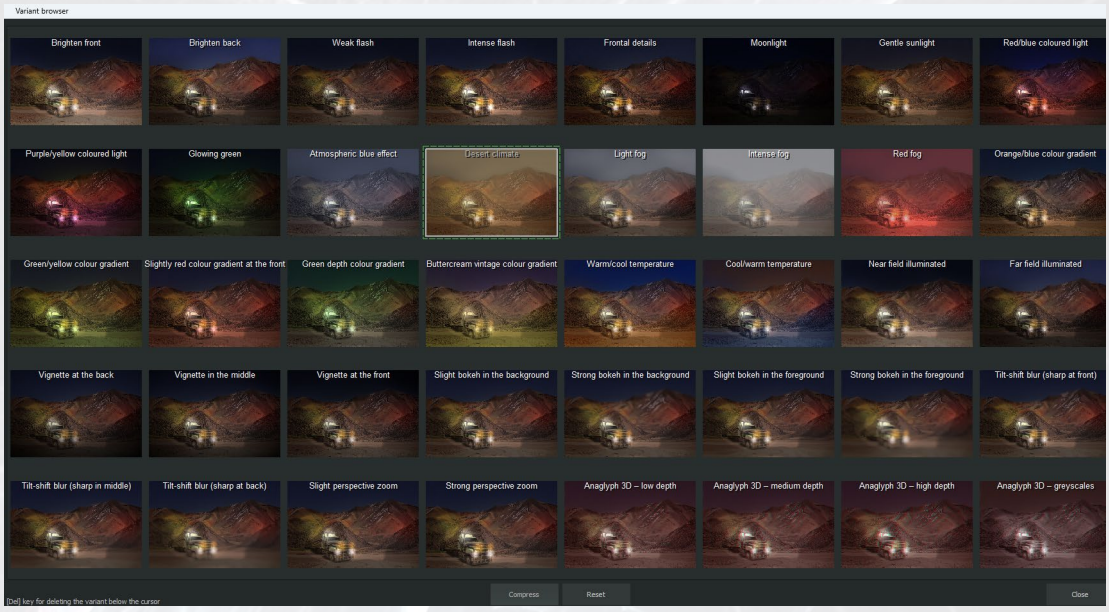
Apply preset: If you click in a desired preset, it is immediately applied to the image, as in the example **Far field illuminated**.
Select interface mode: When the interface mode **half-open** (centre) is activated, the selected categories with the filters and '**main parameters**' used are displayed, in the example the categories **General image filters** with the **Dynamic brightness** effect and **Special effects** with the **Aura** filter.
If you activate the third open interface mode, all parameters are also displayed.

Change presets individually: This display of the categories, the effects used in them and the associated parameters allows you to quickly change individual parameters if required in order to perhaps customise the image mood even better to your personal preferences.
You can use these presets to apply special image looks in a flash, or you can see the presets and various effects and parameter settings as inspiration for your own realisation ideas.

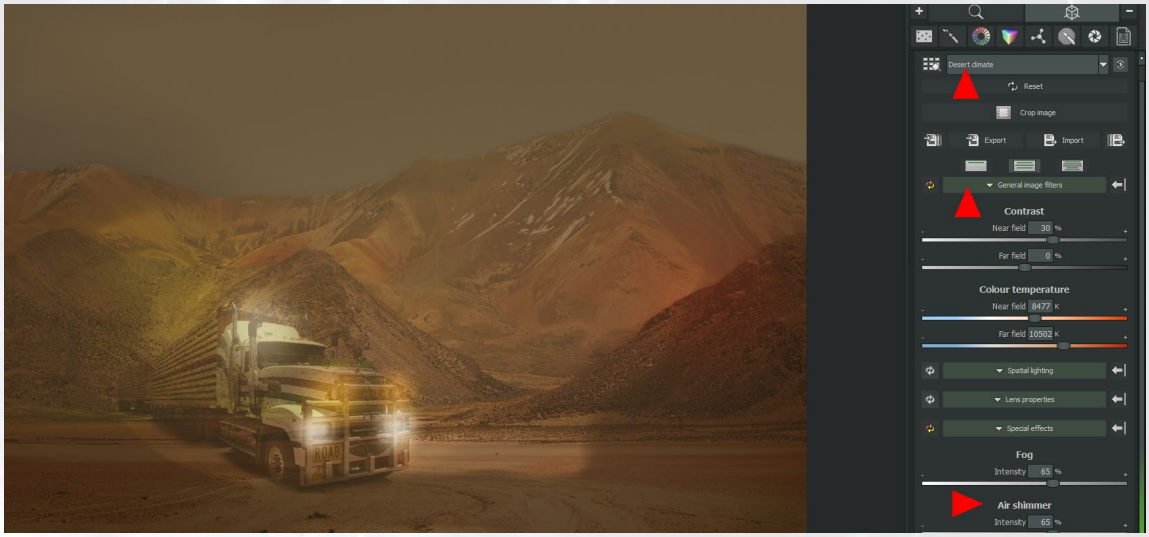
Note: If you have clicked on a preset, you can use the up or down buttons to quickly view all other presets with the effect on the loaded image.

Variant browser - the ‘visual’ list of presets

Click on the browser symbol …



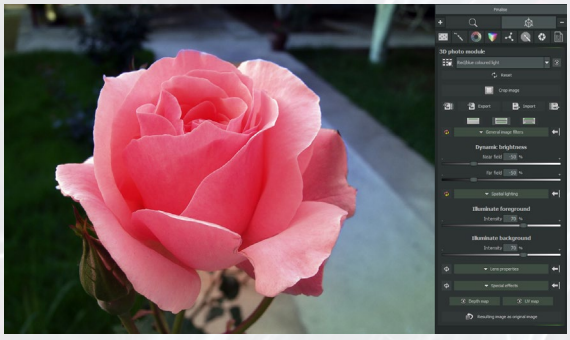
… opens the **variant browser**, in which all presettings are displayed as a thumbnail overview and make preselection easier. By clicking on a thumbnail, in the example desert climate, it becomes active, outlined in green …



… and called up by double-clicking on it.
In the example, the preset contains **4 effect combinations** in the categories **General image** filters (contrast, colour temperature) and **Special effects** (Fog, Air shimmer).

Theme with fast variations

The presets invite you to experiment with an invited image motif in order to assess different image look variations of the same theme and, if necessary, to adopt them in exactly the same way or to change the basic idea individually with the parameters.



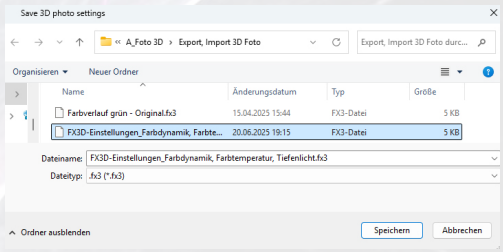
In the example with the rose, the presets **red/blue coloured light** (graphic on the left) and **Buttercream vintage colour gradient** have been selected.

The 2nd image example with the locomotive shows the default settings ...

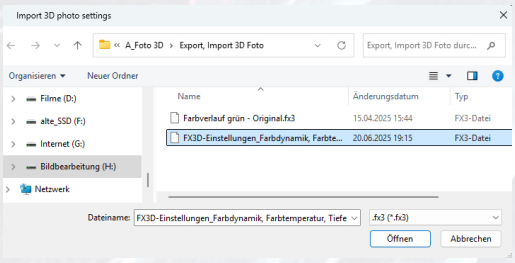
... **Far field illuminated** (graphic on the left) and **Red fog** have been selected.

10. Export-/Import-functions

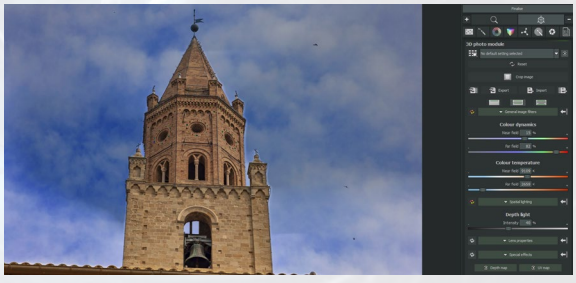
If you have created an image look in one or more categories, one or more effects and would like to apply these settings to other image motifs just before closing the programme or at some point after closing the programme, you can do this using the export/import functions.



Export: Click on the **Export button** (**1**) to save all the changes made to the **colour dynamics**, **colour temperature** and **depth light** effects in the image example in a folder of your choice as an **.fx3** file.



Import: Open the folder again by clicking on the **Import button** (**2**) and import the desired settings by double-clicking on them, the loaded motif will be assigned exactly this image look and can be customised using the parameters if required.
Quick export/quick import: Click on the **Quick export button** (**3**) to export the current 3D photo settings to an **internal file** ...



... and immediately applied to another loaded image by clicking on the **Quick import button** (**4**). **As long as the programme is not closed, you can apply other effects to as many other images as you like** - the settings remain saved.